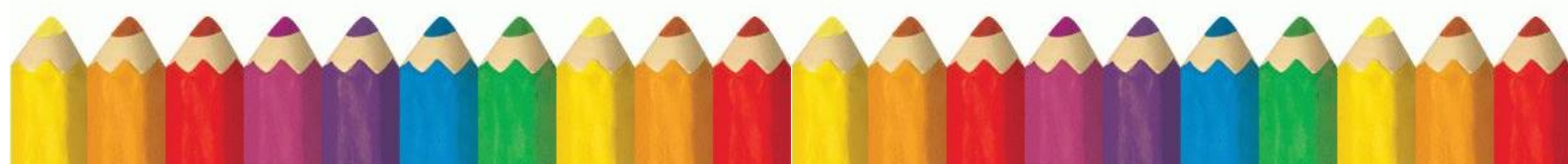




Watcombe Primary School



Curriculum Overview





Our Curriculum – Intent, Implementation & Impact

Curriculum Intent

At Watcombe we offer a curriculum that inspires our learners. The curriculum holds high expectations through a broad and balanced approach in which all learners are motivated to achieve the highest standards possible in all areas of learning and provides equality of opportunity for all.

Rich and varied experiences enable the learners to cohesively and progressively acquire, develop and apply a range of knowledge, understanding and skills as well as promoting creative and critical thinking. The curriculum utilises opportunities for cross curricular links to deepen and strengthen learning as well as to promote the transference of knowledge and skills.

The curriculum map across the school ensures that the depth and coverage of knowledge and skills meets the statutory requirements and the needs of the pupils and community.

At Watcombe the term curriculum refers to the opportunities that learners experience whilst at school both in lessons, throughout the day and within extra school clubs or curriculum events. It includes the national curriculum subjects, RE, RSHE and RSE.

Inherent within the curriculum is the promotion of emotional wellbeing as well as an integrated opportunities to develop spiritual, moral, social and cultural learning.

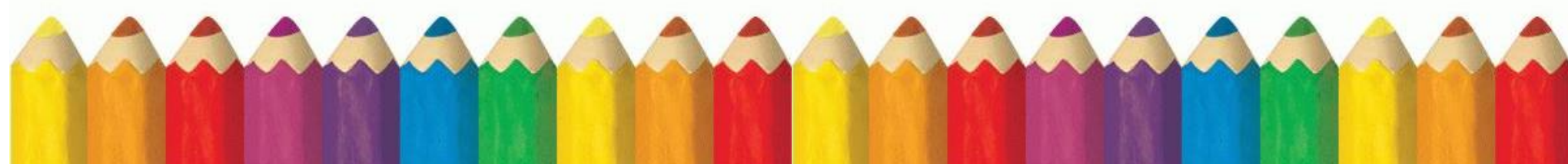
The knowledge of the community in which our learners live is instrumental in influencing the curriculum design in order to ensure their needs, both academic and pastoral, are met.

Our Curriculum: specific principles

- High expectation and uncompromising focus upon the development and application of reading, writing and maths skills.
- In the EYs and KS1 there is a clear progressive phonics focus to support reading and writing progress.
- Create a range of broad and balanced opportunities, across the different subjects, which are tailored to the interest of the pupils and in turn inspire pupils to learn purposefully.
- Emphasis upon developing an understanding of the world around them and the high profile of developing and extending vocabulary.
- Learning is sequenced cohesively and progressively encouraging children to build on prior learning towards clearly defined outcomes at different stages.
- Outcomes are diagnostically evaluated in order to direct future planning.
- Curriculum is equitable for all learners – support and intervention needs (both academic and pastoral) are identified early and provision put in place to counter needs with regular review of impact.
- First class teaching is based upon building positive relationships in which all learners feel valued and develop confidence and self-esteem.
- Promoting active learning is paramount to ensure pupils challenge themselves to deepen their thinking and understanding of knowledge, skills and concepts.
- Clear focus to develop an understanding of the importance of healthy lifestyles both physically and mentally.
- Support for SEMH and positive emotional well-being needs features highly to ensure pupils are able to independently regulate emotions and access learning.
- British Values are held in high recognition and explicit within the curriculum and supported by SMSC
- 'Growth Mindset' promotes positive lifelong learning behaviours and attitudes.
- Pupils play a central role in the curriculum to ensure it is meeting their needs and that they have the right support and opportunities to make the best progress possible.
- Safeguarding (including E safety) – both keeping pupils safe and pupils learning how to keep themselves safe is at the forefront of the curriculum.
- The pursuit of parental support is paramount in order for pupils to achieve to the highest degree.
- Community partnership engagement is harnessed to utilise learning opportunities and to develop a sense of belonging and commitment.

The curriculum is designed to support the children in making progress towards the holistic over-arching school aims:

- To be a **confident individual**
- To be a **successful learner**





- To be a **responsible citizen**

In support of these aims, the school community has established 4 learning values which are integral to the curriculum:

<p>RESPECT</p> <p>We want learners to show respect to other people and their opinions within school and the wider community.</p>	<p>RESPONSIBILITY</p> <p>We want learners to be responsible for their actions and attitudes.</p>
<p>CONFIDENCE</p> <p>We want learners to be confident and believe in themselves</p>	<p>ASPIRATION</p> <p>We want learners to have ambitious personal goals.</p>

Ultimately the curriculum will aspire to create life - long learners prepared for the next stage of education and life challenges.

Implementation

The curriculum at Watcombe is underpinned by the national curriculum expectations through which a broad and balanced learning experience, both cohesive and progressive, is achieved. This is guided by the following documents:

- EYFS – focusing upon the 4 key themes and characteristics of effective learning.
- English and Maths are planned using the National Curriculum expectations for specific year groups.
- Other subjects are based upon the National Curriculum – this is based on a two-year rolling programme for KS1, Lower KS2 and Upper KS2. The Foundation curriculum is planned in response to children's interests and their next steps (Development Matters). For each subject a knowledge and skill based progression operates which leads planning in terms of the skills and levels children aspire to achieve in line with their developmental stage.
- RE – follows the Torbay RE Syllabus
- RSHE & RSE are planned using the RSHE Association Planning Toolkit which incorporates citizenship

The curriculum is delivered through inspiring 'learning journeys' which are carefully crafted to capture the pupils' interests and thus motivate them in their learning. Each learning journey is initiated with a 'hook' experience which will enthuse pupils. The learning journey is then carefully sequenced, towards achieving a pre-defined outcome, which is shared with the children, giving the learning real purpose. Pupils will then demonstrate their attainment through the application of skills and knowledge.

Learning is aligned towards achieving the learning journey outcome such as becoming a local Torquay Tourist Guide, Graduating from 'Watcombe School of Magic', producing a cook book or being a guide in the School Zoo.

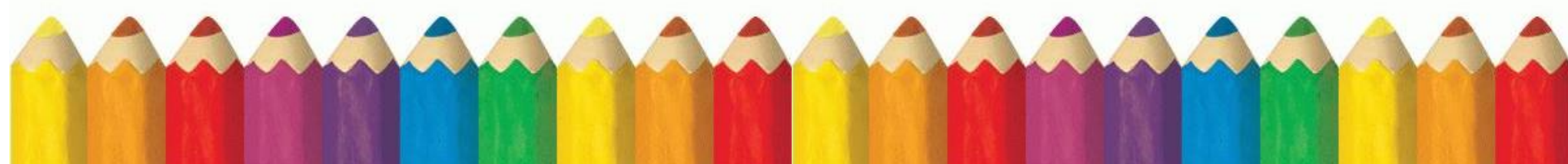
Some areas/subjects of learning are taught discretely but still have a purposeful outcome.

Learning pedagogy promotes the pupils to be active in their learning and to think deeply about what they are learning. Opportunities are regularly created for learners to reflect upon how the knowledge and skills already acquired can assist in tackling new challenges as well as reviewing progress made.

Questioning is a key element within the implementation of the curriculum. Adults will use questions to engage pupils in the learning, set challenges, encourage deeper thinking and to evaluate learning. Adults enable pupils to understand key concepts through timely and focused discussion. In tandem with growth mindset pupils are encouraged to see mistakes as opportunities for learning, grapple with concepts and have thinking time to order and make sense of their thoughts. Questioning and discussion will support teachers to check pupil understanding and respond appropriately.

The curriculum focuses upon the development of long term memory and the need to ensure that knowledge and skills are embedded within memory. Regular opportunities for revisiting and retrieval are embedded within the curriculum as a 'learning tool' in order for children to develop a fluency in recall (unconsciously) and thus allow the working memory to be fully operational and creative. Learning is planned in small steps, that develop into larger 'chunks' in a progressive manner building on prior knowledge.

Reading is prevalent throughout the curriculum and there is also a specific drive to ensure that pupils are able to read to the appropriate level in line with their development. The skills of reading are specifically taught with a clear focus upon early phonics developing towards high level skills such as: retrieval, inference and vocabulary. Pupils are encouraged to regularly read both in and out of school to practice the skills they have learned.





Children also share a class story on a daily basis through which understanding about the world is promoted. These opportunities are to explore experiences beyond their own and to develop a richness of vocabulary, which in turn supports them to articulate their thoughts and ideas.

Teacher knowledge is paramount to ensuring high quality teaching alongside clear progressive school knowledge and skills ladders.

Timely intervention to support pupil learning both academically and pastorally is particularly evident within the curriculum. Through careful and accurate assessment (both diagnostic and summative) pupils may be referred to speedy interventions or programmes of support to enable them to make expected progress. Progress is monitored and evaluated in order to ensure needs are being met.

Pupils who have specific challenges within learning may also access additional resources through SEND or Pupil Premium funding:

Impact

The curriculum at Watcombe reflects the ethos and vision of the school towards achieving the overall school aims.

The curriculum is evaluated at different levels to determine the impact it has upon pupil learning and the outcomes that are achieved. It is our belief, that a well structured and well taught curriculum should meet the needs of the pupils and ensure good progress from pupil starting points.

Both Senior Leaders (School Improvement Leaders) and Middle leaders have responsibility for evaluating the curriculum. This is undertaken through a range of activities that include: observing teaching and learning, discussion with pupils, sampling the quality of work books, analyses of planning and data outcomes. The following questions are asked in relation to ensuring the curriculum provision is as effective as possible:

- What have the children learnt?
- Is the learning at the appropriate level for the developmental stage / age?
- What needs to be developed / improved?
- Is it in line with the school policies / pedagogy?

Assessment is instrumental in tracking pupil progress. Assessment happens in a range of ways, from lesson by lesson processes gauging understanding and directing learning to a summative assessment demonstrating achievement over time. Assessments inform planning and provisions and may lead to a range of interventions from daily 'speedy intervention' to more formal programmes of intervention accessed over time.

Accurate assessment is vital and within the curriculum and a number of strategies (inc. formal mid year testing) are employed to ensure this is achieved. Assessments are also moderated both across the school and by working in partnership with other schools in order to achieve validation.

Assessment data is formally analysed times a year (see appendix A) in order to track progress of pupils and to ensure any additional support to enhance learning is actioned as early as possible in order to have the greatest impact. The impact of additional provisions are then monitored regularly to ensure they are having a positive impact.

Progress is tracked for specific groups of pupils: from starting points / Pupil Premium / SEND. The impact of provisions is then analysed to ensure it is having an impact upon learning.

At Watcombe there is also a focus relating to progress across the different phases of the school. School Improvement Leaders carefully consider and review transitions across phases, within and beyond the school, to ensure smooth and productive changes.

Governors are very proactive in monitoring the impact of the curriculum. The Children and Curriculum Committee meet termly and also have specified governors with specific remits to evaluate the impact of the curriculum on a termly basis:

Data Group - analyse current data for groups across school / analyse national data comparisons

Safeguarding & CLA

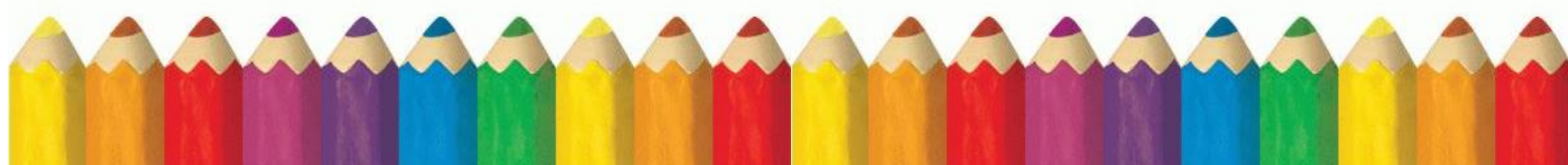
Personal Development, Welfare and Behaviour - analyses behaviour logs / attendance / pupil voice

SEND - specific focus on SEND provision and outcomes

Pupil Premium - specific focus on Pupil Premium provision and outcomes


Sports Funding (from Finance Committee)





All evaluative outcomes feed into the School Improvement Plan for the future developments.







LEARNING PRINCIPLES FOR PLANNING


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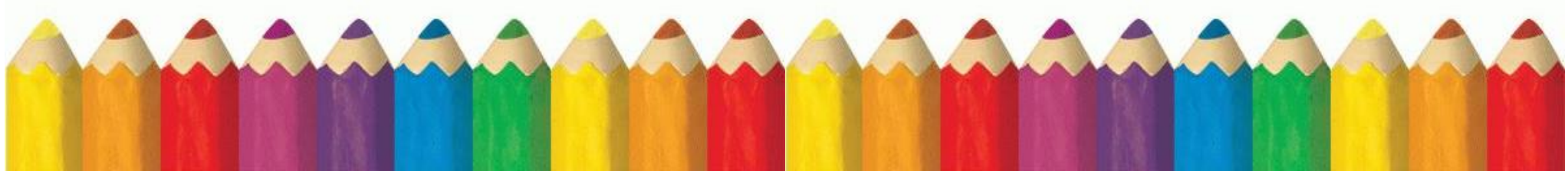

- **Relevant** – children understand why we are doing it and have a sense of ownership.
 - **Progressively and systematically sequenced, building on prior learning, to promote long-term memory through fluency.**
 - **Active learning** – learners do the thinking through planned questioning.
 - **First-hand experience** – pupils involved in learning experiences.
 - **Create opportunities to develop a rich vocabulary.**
 - **Challenge** – learning meets the needs of the learners and is challenging. Use the ‘Learning Pit’ analogy in order for children to understand that learning can feel ‘uncomfortable’.
 - **Include investigative activities** – encourage children to think through problems using what they know.
 - **Have clarity about what the children will learn.**

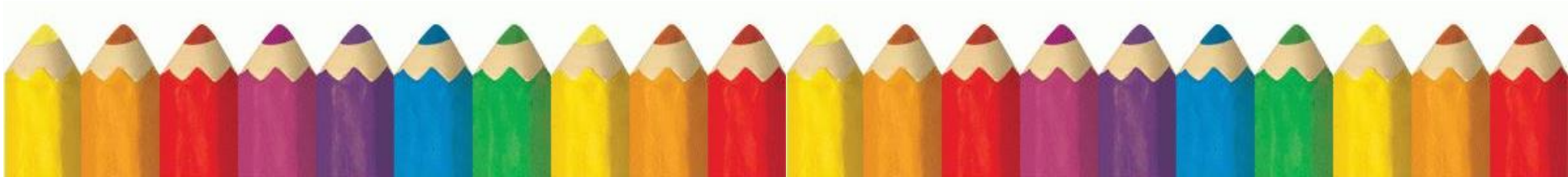








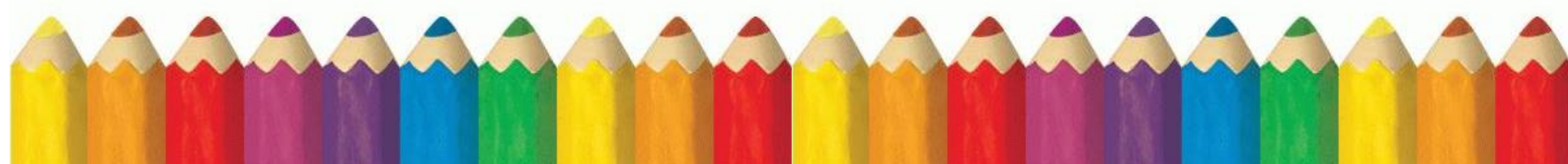




Watcombe Primary School



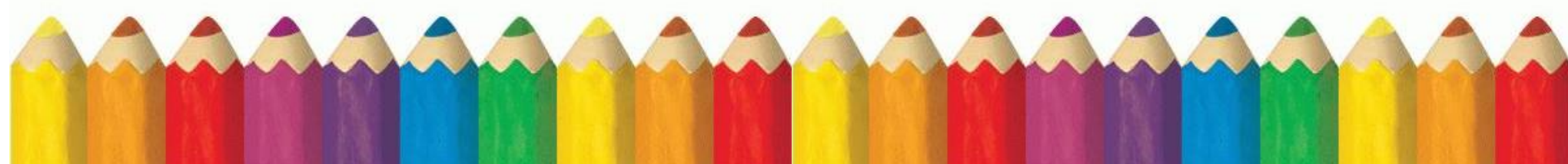
Curriculum Overviews





Year 1 & 2 – Curriculum Map

Year A		Year B	
Daily Teaching Sessions	READING & WRITING See national curriculum for year group coverage. Class story across the year.	READING & WRITING See national curriculum for year group coverage. Class story across the year.	MATHEMATICS See national curriculum for year group coverage. Mathematics linked across the curriculum where purposeful.
	MATHEMATICS See national curriculum for year group coverage. Mathematics linked across the curriculum where purposeful.		
Weekly Teaching Sessions (during three half terms)	RSHE Y1 Autumn – Relationships Healthy Relationships, Feelings & Emotions, Valuing Difference Units R1-R7 (from PSHE SoW – Planning Toolkit) Spring - Health & Wellbeing Healthy Lifestyles Keeping Safe, Growing & Changing Units H1-H8 (from PSHE SoW – Planning Toolkit) Summer – Living in the Wider World Rights & Responsibilities, Taking Care of the Environment, Money Matters. Units L1-L5 (from PSHE SoW-Planning Toolkit) Also through:- PE-Healthy lifestyles, Technology -healthy eating, Computing -Safety online, Science - growing & changing, RE -Valuing Differences	RSHE Y2 Autumn – Relationships Healthy Relationships, Feelings & Emotions, Valuing Difference Units R8-R14 (from PSHE SoW-Planning Toolkit) Spring - Health & Wellbeing Healthy Lifestyles Keeping Safe, Growing & Changing Units H9-H16 (from PSHE SoW-Planning Toolkit) Summer – Living in the Wider World Rights & Responsibilities, Taking Care of the Environment, Money Matters. Units L6-L10 (from PSHE SoW-Planning Toolkit) Also through:- PE-Healthy lifestyles, Technology -healthy eating, Computing -Safety online, Science - growing & changing, RE -Valuing Differences	MUSIC – Year 1 (Year A & B) Clapping and partner games Call and response activities Describing and listening to the musical pitch of simple familiar songs Musical games developing singing voices and rhythms
	MUSIC – Year 1 (Year A & B) Clapping and partner games Call and response activities Describing and listening to the musical pitch of simple familiar songs Musical games developing singing voices and rhythms		
	PE Aut 1: – Team Games (paired). Aut 2: Dance Spr 1 – Gymnastics. Spr 2: Team Games (Bouncing, Throwing and catching) Sum 1 – Athletics. Sum 2: Team Games (traveling, kicking, hitting)		
	ICT - Year 1 (Year A & B) We are treasure hunters 9 using programmable toys We are TV chefs (filming the steps for a recipe) We are painters (illustrating a book) We are collectors (finding images using the web) We are storytellers (producing a talking book) Creating a card digitally		
	RE 1.6 Who is Muslim and how do they live 1.7 Who is Jewish and how do they live		
	HISTORY Significant historical events Events beyond living memory that are significant nationally or globally The Titanic		
	SCIENCE Living things and their habitats Plants Animals including humans Seasonal Changes Process		
	GEOGRAPHY Local study & Contrasting small area of non-European country (Egypt) Know; location, human & physical geography through world maps, globes, aerial photos & fieldwork. Name: the 7 continents and 5 oceans and the 4 countries of the UK, capital cities, surrounding seas & the equator.		
	ART Painting Sculpture (colour, pattern, texture, line, shape, form & space)		
	TECHNOLOGY Food & Structures (packaging) (DT pedagogy: design, make, evaluate)		
Blocked Topics	READING & WRITING See national curriculum for year group coverage. Class story across the year.	READING & WRITING See national curriculum for year group coverage. Class story across the year.	MATHEMATICS See national curriculum for year group coverage. Mathematics linked across the curriculum where purposeful.
	MATHEMATICS See national curriculum for year group coverage. Mathematics linked across the curriculum where purposeful.		
	RSHE Y1 Autumn – Relationships Healthy Relationships, Feelings & Emotions, Valuing Difference Units R1-R7 (from PSHE SoW – Planning Toolkit) Spring - Health & Wellbeing Healthy Lifestyles Keeping Safe, Growing & Changing Units H1-H8 (from PSHE SoW – Planning Toolkit) Summer – Living in the Wider World Rights & Responsibilities, Taking Care of the Environment, Money Matters. Units L1-L5 (from PSHE SoW-Planning Toolkit) Also through:- PE-Healthy lifestyles, Technology -healthy eating, Computing -Safety online, Science - growing & changing, RE -Valuing Differences		
	RSHE Y2 Autumn – Relationships Healthy Relationships, Feelings & Emotions, Valuing Difference Units R8-R14 (from PSHE SoW-Planning Toolkit) Spring - Health & Wellbeing Healthy Lifestyles Keeping Safe, Growing & Changing Units H9-H16 (from PSHE SoW-Planning Toolkit) Summer – Living in the Wider World Rights & Responsibilities, Taking Care of the Environment, Money Matters. Units L6-L10 (from PSHE SoW-Planning Toolkit) Also through:- PE-Healthy lifestyles, Technology -healthy eating, Computing -Safety online, Science - growing & changing, RE -Valuing Differences		
	MUSIC – Year 2 (Year A & B) Music notation –rhythm and melody Playing tuned instruments- Glockenspiels Developing singing voices Using ‘Charanga’ music program Year 2		
	PE Aut 1: – Team Games (paired). Aut 2: Dance Spr 1 – Gymnastics. Spr 2: Team Games (Bouncing, Throwing and catching) Sum 1 – Athletics. Sum 2: Team Games (traveling, kicking, hitting)		
	ICT - Year 2 (Year A & B) We are astronauts (programming a screen) We are games testers (exploring how computer games work) We are photographers (taking better pictures) We are researchers (researching a topic) We are detectives (collecting clues) We are zoologists (collecting data about bugs)		
	RE 1.8 What makes some places sacred to believers 1.9 How should we care for others and the world and why does it matter 1.10 What does it mean to belong to a faith community		
	HISTORY Lives of significant individuals in the past who have contributed to national and international achievements Sir Francis Drake Changes within living memory		
	SCIENCE Living things and their habitats Plants Everyday materials Seasonal Changes Process		
	GEOGRAPHY Local study & Contrasting small area of non-European (Mexico- Oaxaca, Cancun or Tulum) Know; location, human & physical geography through world maps, globes, aerial photos & fieldwork. Name: the 7 continents and 5 oceans and the 4 countries of the UK, capital cities, surrounding seas & the equator.		
	ART Drawing Sculpture (colour, pattern, texture, line, shape, form & space)		
	TECHNOLOGY Textiles Mechanisms (wheels / axles) (DT pedagogy: design, make, evaluate)		



Year 3 & 4 – Curriculum Map

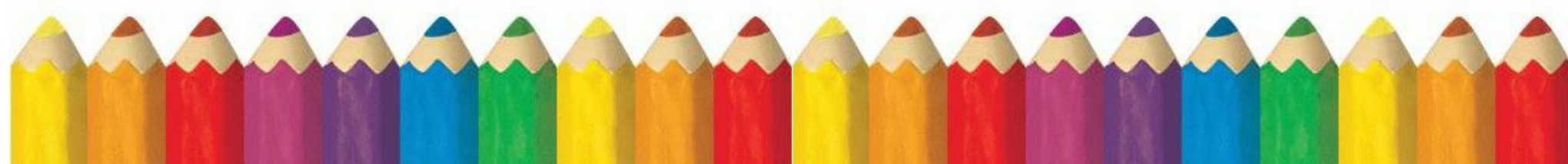
Daily Teaching Sessions	Year A			Year B		
	READING & WRITING See national curriculum for year group coverage. Exposure to a wide range of genres including: fiction, play scripts, recount, instruction, explanation, discussion, report, biography and poetry. Class story across the year.			READING & WRITING See national curriculum for year group coverage. Exposure to a wide range of genres including: fiction, play scripts, recount, instruction, explanation, discussion, report, biography and poetry. Class story across the year.		
	MATHEMATICS See national curriculum for year group coverage. Mathematics linked across the curriculum where purposeful.			MATHEMATICS See national curriculum for year group coverage. Mathematics linked across the curriculum where purposeful.		
	RSHE Y3 Autumn – Relationships Healthy Relationships, Feelings & Emotions, Valuing Difference Units R1-R10 (from PSHE SoW) Spring - Health & Wellbeing Healthy Lifestyles Keeping Safe, Growing & Changing Units H1-H12 (from PSHE SoW) Summer – Living in the Wider World Rights & Responsibilities, Taking Care of the Environment, Money Matters. Units L1-L9 (from PSHE SoW) Also through:- PE-Healthy lifestyles, Technology-healthy eating, Computing-Safety online, Science-growing & changing, RE-Valuing Differences			RSHE Y4 Autumn – Relationships Healthy Relationships, Feelings & Emotions, Valuing Difference Units R11-R21 (from PSHE SoW) Spring - Health & Wellbeing Healthy Lifestyles Keeping Safe, Growing & Changing Units H13-H23 (from PSHE SoW) Summer – Living in the Wider World Rights & Responsibilities, Taking Care of the Environment, Money Matters. Units L9-L18 (from PSHE SoW) Also through:- PE-Healthy lifestyles, Technology-healthy eating, Computing-Safety online, Science-growing & changing, RE-Valuing Differences		
	MUSIC Learning musical skills through singing and learning to play instruments. Violins or guitar and recorders Red-hot recorders/ Charanga / sing up resources used. Singing songs from around the world Termly performances			MUSIC Learning musical skills through singing and learning to play instruments. Violins or guitar and recorders Red-hot recorders/ Charanga / sing up resources used. Singing songs from different decades Termly performances		
	ICT We are programmers (programming and animation) We are bug fixers (finding and correcting bugs in programmes) We are presenters (videoing performance) We are network engineers (exploring computer networks) We are communicators (communicating safely on the internet) We are opinion pollsters (collecting and analysing data)			ICT We are software developers (developing a simple educational game) We are toy designers (prototyping an interactive toy) We are musicians (producing digital music) We are HTML editors (editing and writing HTML) We are co-authors (producing a wiki) We are meteorologists (presenting the weather)		
	RE L2.7 What do Hindus believe that God is like? (Brahman/atman) L2.8 What does it mean to be Hindu in Britain today (Dharma) L2.9 How do festivals and worship show what matters to a Muslim? (Ibadah)			RE L2.10 How do festivals and family life show what matters to Jews?(God/Torah/People/ land) L2.11 How and why do people mark the significant events of life? L2.12 How and why do people try to make the world a better place?		
	FRENCH			FRENCH		
	<ul style="list-style-type: none">Numbers 0-6GreetingsClassroom phrasesAdjectivesVocabulary for spelling skillsVocabulary for sentence building	<ul style="list-style-type: none">Numbers 7-10Phrase of celebrationVocabulary for spelling skillsVerbsAdverbsAsking politelyMasculine and feminine nounsPunctuation	<ul style="list-style-type: none">Numbers 11-31Vocabulary from a songResponding to questionsDays of the weekTaking the registerPunctuation	<ul style="list-style-type: none">Questions, answers and sentence buildingFurther adjectivesVocabulary for a gameMasculine nounsFeminine nouns	<ul style="list-style-type: none">Adjectives that precede the nounSentence startersVerbsPunctuationMonthsDefinite article	<ul style="list-style-type: none">Vocabulary from a songQuestions and answersPhrases of celebration / greetingTowns in France
	PE Autumn – Invasion Games & Dance Spring – Gymnastics/ Outdoor & Adventurous Summer – Athletics/Striking & Fielding			PE Autumn – Invasion Games & Dance Spring – Gymnastics/ Outdoor & Adventurous Summer – Athletics/Striking & Fielding		
SCIENCE Working Scientifically Living things & their habitats Plants Rocks Light & Sound			SCIENCE Working Scientifically Animals including humans States of matter Forces & magnets Electricity			
ART Use of a sketch book / Artists Sculpture Painting			ART Use of a sketch book / Artists Drawing Architects/designers			
DESIGN TECHNOLOGY Mechanisms – leavers and linkages Structures			DESIGN TECHNOLOGY Textiles Food Electrical systems			
HISTORY Changes to Britain from the stone to iron age (including a local study) The Roman Empire and its impact on Britain			HISTORY Britain’s settlement by Anglo-Saxons and Scots Viking and Anglo-Saxon struggle of England to Edward the Confessor			
GEOGRAPHY			GEOGRAPHY			
Weekly Teaching Sessions (during three half terms)						
Weekly						
Blocked Topics						



Location: naming and locating counties and cities in the UK. Focus on a region of the UK. (link with history – stone age) Human & Physical: Volcanoes and earthquakes (links with Science – rocks)	Location: locate countries around the world with a focus upon Europe, North & South America Human & Physical: Water cycle (links with Science – states of matter)
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Year 5 & 6 – Curriculum Map

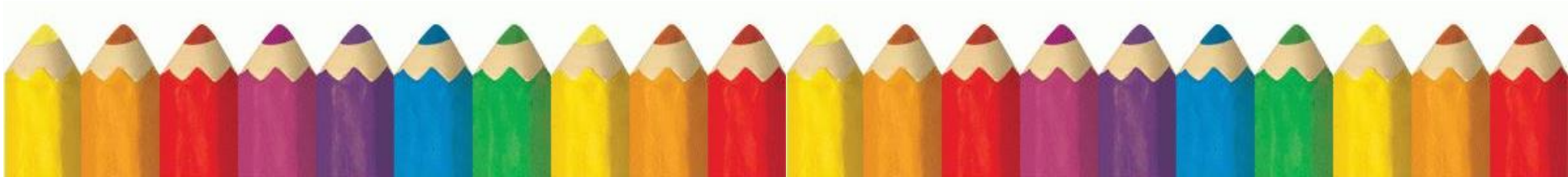
Year A			Year B		
Daily Teaching Sessions	READING & WRITING See national curriculum for year group coverage. Exposure to a wide range of genres including: fiction, play scripts, recount, instruction, explanation, discussion, report, biography and poetry. Class story across the year.		READING & WRITING See national curriculum for year group coverage. Exposure to a wide range of genres including: fiction, play scripts, recount, instruction, explanation, discussion, report, biography and poetry. Class story across the year.		
	MATHEMATICS See national curriculum for year group coverage. Mathematics linked across the curriculum where purposeful.		MATHEMATICS See national curriculum for year group coverage. Mathematics linked across the curriculum where purposeful.		
Weekly Teaching Sessions (during three half terms)	RSHE Autumn – Relationships Healthy Relationships, Feelings & Emotions, Valuing Difference Units R1-R11 (from PSHE SoW) Spring - Health & Wellbeing Healthy Lifestyles Keeping Safe, Growing & Changing Units H1-H12 (from PSHE SoW) Summer – Living in the Wider World Rights & Responsibilities, Taking Care of the Environment, Money Matters. Units L1-L9 (from PSHE SoW) Also through:- PE-Healthy lifestyles, D&T-healthy eating, Computing-Safety online, Science-growing & changing, RE-Valuing Differences, RSE-(Summer Term) puberty, human reproduction(Y6)		RSHE Autumn – Relationships Healthy Relationships, Feelings & Emotions, Valuing Difference Units R12-R21 (from PSHE SoW) Spring - Health & Wellbeing Healthy Lifestyles Keeping Safe, Growing & Changing Units H13-H24 (from PSHE SoW) Summer – Living in the Wider World Rights & Responsibilities, Taking Care of the Environment, Money Matters. Units L10-L18 (from PSHE SoW) Also through:- PE-Healthy lifestyles, D&T-healthy eating, Computing-Safety online, Science-growing & changing, RE-Valuing Differences, RSE-(Summer Term) puberty, human reproduction (Y6)		
	MUSIC Charanga Year 5/6 scheme Focus on Jazz 1 and modern music i.e. Dancing on the street/ Happy Opportunities to play and perform in a class ensemble with voices and instruments		MUSIC Charanga Year 5/6 scheme Focus on Jazz 2 and topic songs i.e. Livin' on a prayer/You've got a friend. Opportunities to play and perform in a class ensemble with voices and instruments		
	ICT We are game developers (developing and interactive game) We are cryptographers (cracking codes) We are artists (fusing geometry and art) We are web developers (creating a website about cyber safety) We are bloggers (sharing experiences and opinions) We are architects (creating a virtual space)		ICT We are adventure gamers (making a text-based adventure game) We are computational thinkers (mastering algorithms) We are advertisers (creating a short television advert) We are network engineers (exploring computer networks) We are travel writers (using media and mapping to document a trip) We are publishers (creating a yearbook)		
	SCIENCE Working Scientifically Forces Electricity Light Earth & Space		SCIENCE Working Scientifically Living Things & Their Habitats Animals inc. Humans Evolution & Inheritance Properties & Change		
(across the year)	RE U2.7 Why do Hindus try to be good? (Karma/dharma/samsara/moksha) U2.8 What does it mean to be Muslim in Britain today (Tawhid/iman/ibadah) Why is the Torah so important to Jewish people? (God/Torah)		RE U2.10 What matters most to Humanists and Christians? U2.11 Why do some people believe in God and some people not? U2.12 How does faith help people when life gets hard?		
	FRENCH		FRENCH		
	Masculine nouns Feminine nouns French food Healthy food Expression opinion Expressions of annoyance, impatience, disappointment, frustration, disbelief, joy, disagreement	Adjectives that precede the noun Adverbs of place/ sentence starters Adverbs of time/ frequency Verbs Simple negatives Immediate future tense Asking questions Subject pronouns Disjunctive pronouns	Telling the time Expressions of annoyance, impatience, disappointment, frustration, disbelief, joy, disagreement Relative pronoun Conjunction Numbers 32 - 60	Masculine nouns Feminine nouns Verbs in the infinitive form Conjugated forms in the <i>présent</i> (present tense) Conjugated forms in the <i>imparfait</i> (imperfect tense)	Conjugated forms in the <i>passé composé</i> (perfect tense) Conjugated forms of <i>aller</i> as part of <i>le futur proche</i> (near future tense) Adverbs of place/ sentence starters Adverbs of time Negative adverbs Asking questions
	PE Autumn – Invasion Games & Dance Spring – Gymnastics/ Outdoor & Adventurous Summer – Athletics/Striking & Fielding/Swimming		PE Autumn – Invasion Games & Dance Spring – Gymnastics/ Outdoor & Adventurous Summer – Athletics/Striking & Fielding/Swimming		
Blocked Topics	ART Use of a sketch book / Artists Drawing Sculpture (shape and form)		ART Use of a sketch book / Artists Painting (colour and shape)		
	DESIGN TECHNOLOGY Electrical Systems		DESIGN TECHNOLOGY Textiles		





	Mechanisms (incorporate structures – strengthen, stiffen, reinforce)	Food (incorporate structures – strengthen, stiffen, reinforce)
	HISTORY Aspect/theme of British history that goes beyond 1066, Local history Second World War Non-European society that provides contrast with British History Mayans	HISTORY Achievements of early civilisations Ancient Egyptians Legacy of Ancient Greece culture (architecture, art, literature) The Olympics
	GEOGRAPHY Region in South and North America (including locational place knowledge, physical and human, geographical skills)	GEOGRAPHY Local Environmental Issue (including locational place knowledge, physical and human, skills and fieldwork)



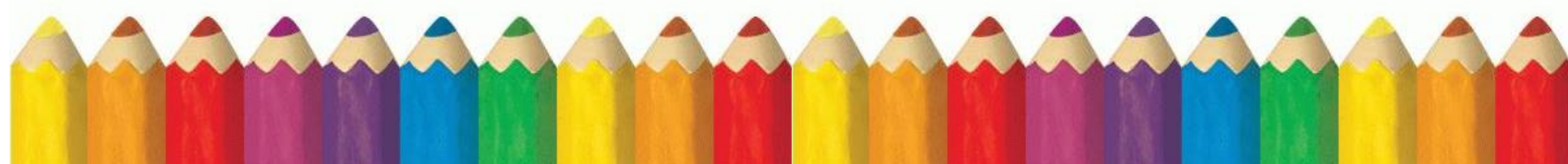


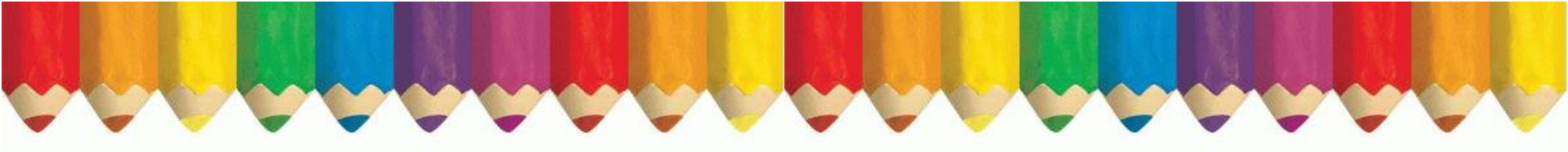


Watcombe Primary School



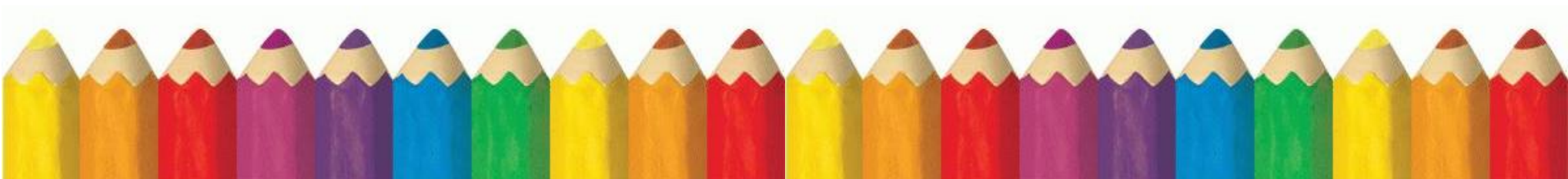
Art





Art – Intent, Implementation, Impact Statement

Intent
<p>In Art, our intent is for the curriculum to enable the children to learn ways of organising and communicating experiences, feelings and ideas through experiencing a range of visual and tactile forms. The curriculum will enable our learners to use various materials and techniques to express and convey perceptions by means of visual language.</p> <p>The Art curriculum at our school will develop a passion and commitment to the subject. Children will engage in conceptual, visual and technical elements along with the productive and the reflective subjective and objective experiences necessary for them to become true budding artists.</p>
Implementation
<p>The Art curriculum is delivered through engaging learning journeys that allow children to develop a broad range of artistic knowledge and techniques. Influences for the outcomes come from a wide range of sources, such as their environment; their life experiences; the work of other artists; society, cultural traditions, politics, literature, music and the materials they work with. Our teaching approach offers children the freedom to experiment and express themselves visually, while at the same time provides the support necessary to help them develop the skills, knowledge and understanding to progress.</p> <p>Children’s understanding of their learning in Art is not only judged by the outcomes of their work, but concerned with the whole process of looking at, thinking about, discussing, appraising and evaluating the art of others as well as their own work.</p> <p>Children explore the visual element of art and learn to confidently use visual language which relates to the way they see things: through line, tone, colour, pattern, texture, shape, form and space. The curriculum also allows children to develop their technical skills, by manipulating the materials of the environment, so that they can confidently make their ideas and feelings visual through the use of a wide range of media.</p>
Impact
<p>The Art the curriculum will make a profound, positive impact to the outcomes of every child, enriching their lives and helping them to develop self-esteem, self-awareness and self-confidence. It will provide opportunities to explore their own and others feelings and allow them alternative ways of knowing and thinking.</p> <p>The impact of the curriculum, to ensure appropriate progress is being achieved, will be reviewed through:</p> <ul style="list-style-type: none">• Pupil conferencing• Teaching & Learning• Assessment processes in line with the expectations• Work sampling





Art – Characteristics of Good Learners

- The ability to use visual language skillfully and convincingly (for example, line, shape, pattern, colour, texture, form) to express emotions, interpret observations, convey insights and accentuate their individuality.
- The ability to communicate fluently in visual and tactile form.
- The ability to draw confidently and adventurously from observation, memory and imagination.
- The ability to explore and invent marks, develop and deconstruct ideas and communicate perceptively and powerfully through purposeful drawing in 2D, 3D or digital media.
- An impressive knowledge and understanding of other artists, craftmakers and designers.
- The ability to think and act like creative practitioners by using their knowledge and understanding to inform, inspire and interpret ideas, observations and feelings.
- Independence, initiative and originality which they can use to develop their creativity.
- The ability to select and use materials, processes and techniques skillfully and inventively to realise intentions and capitalise on the unexpected.
- The ability to reflect on, analyse and critically evaluate their own work and that of others.
- A passion for and a commitment to the subject.





Art – Early Years

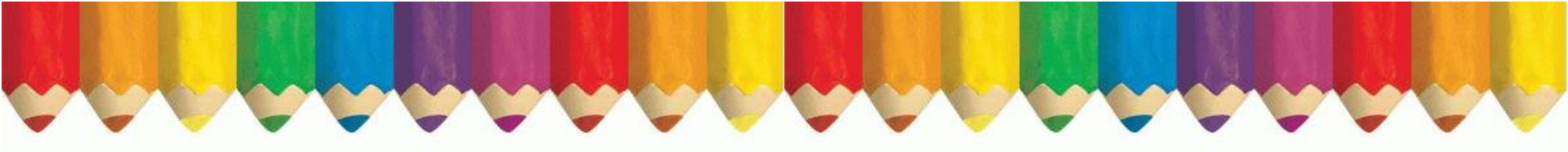
The 2021 EYFS framework is structured very differently to the National Curriculum as it is organised across seven areas of learning rather than specific subject areas. The aim of this document is to help subject leaders to understand how the skills taught across the EYFS feed into National Curriculum subjects. The Early Learning Goals (ELG) should be used to support teachers to make a holistic, best-fit judgement about a child’s development, and their readiness for year 1. It is important to note that the ELG are not the Watcombe curriculum and do not limit teachers in their provision.

This document demonstrates which early years outcomes are prerequisite skills for art within the National Curriculum. Bellow you can find the most relevant ELG to art and the recommendations on the pathways of children’s development in ages and stages from the 2021 Development matters.

The most relevant ELG for art are taken from the area of Expressive Arts and Design

ELG: Creating with Materials Children at the expected level of development will:		- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; - Share their creations, explaining the process they have used; - Make use of props and materials when role playing characters in narratives and stories.
Development Matters: Development Pathway		
Birth to Three	Start to make marks intentionally. Explore paint, using fingers and other parts of their bodies as well as brushes and other tools. Express ideas and feelings through making marks, and sometimes give a meaning to the marks they make. Explore different materials, using all their senses to investigate them. Manipulate and play with different materials. Use their imagination as they consider what they can do with different materials. Make simple models which express their ideas.	
Three to Four Year olds	Explore different materials freely, to develop their ideas about how to use them and what to make. Develop their own ideas and then decide which materials to use to express them. Join different materials and explore different textures. Create closed shapes with continuous lines and begin to use these shapes to represent objects. Draw with increasing complexity and detail, such as representing a face with a circle and including details. Use drawing to represent ideas like movement or loud noises. Show different emotions in their drawings and paintings, like happiness, sadness, fear, etc. Explore colour and colour mixing. Show different emotions in their drawings – happiness, sadness, fear, etc. .	
Children in reception.	Explore, use and refine a variety of artistic effects to express their ideas and feelings. Return to and build on their previous learning, refining ideas and developing their ability to represent them. Create collaboratively, sharing ideas, resources and skills	



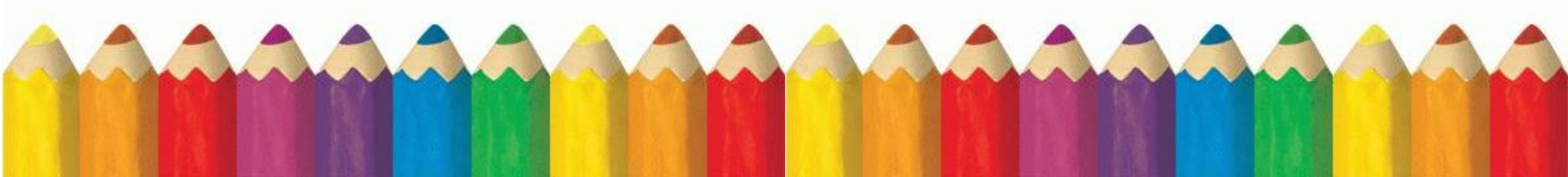


Art – Key Learning in KS1 & KS2



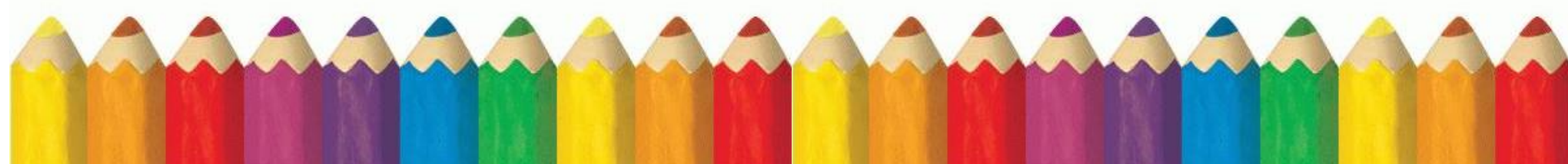
TEACHING PEDAGOGY			
INVESTIGATE IDENTIFIED ARTIST Discuss / compare / preferences	DEVELOP SKILLS Practice develop skills in relation to artist	PRODUCE OWN WORK In the style of the artist studied using skills developed	EVALUATE Discuss work and relate to initial discussions: compare / preferences

		Year 1/2	Year 3/4	Year 5/6
To develop ideas		<ul style="list-style-type: none">• Respond to ideas and starting points.• Explore ideas and collect visual information.• Explore different methods and materials as ideas develop.	<ul style="list-style-type: none">• Develop ideas from starting points throughout the curriculum.• Collect information, sketches and resources.• Adapt and refine ideas as they progress.• Explore ideas in a variety of ways.• Comment on artworks using visual language.	<ul style="list-style-type: none">• Develop and imaginatively extend ideas from starting points throughout the curriculum.• Collect information, sketches and resources and present ideas imaginatively in a sketch book.• Use the qualities of materials to enhance ideas.• Spot the potential in unexpected results as work progresses.• Comment on artworks with a fluent grasp of visual language.
To master techniques In order for children to develop the knowledge within all techniques, they should also be able to explain the given skill verbally using the correct, appropriate language. eg (tint/tone/colour/line texture/wash/mood)	Painting	<ul style="list-style-type: none">• Use thick and thin brushes.• Mix primary colours to make secondary.• Add white to colours to make tints and black to colours to make tones.• Create colour wheels.	<ul style="list-style-type: none">• Use a number of brush techniques using thick and thin brushes to produce shapes, textures, patterns and lines.• Mix colours effectively.• Use watercolour paint to produce washes for backgrounds then add detail.• Experiment with creating mood with colour.	<ul style="list-style-type: none">• Sketch (lightly) before painting to combine line and colour.• Create a colour palette based upon colours observed in the natural or built world.• Use the qualities of watercolour and acrylic paints to create visually interesting pieces.• Combine colours, tones and tints to enhance the mood of a piece.• Use brush techniques and the qualities of paint to create texture.• Develop a personal style of painting, drawing upon ideas from other artists.





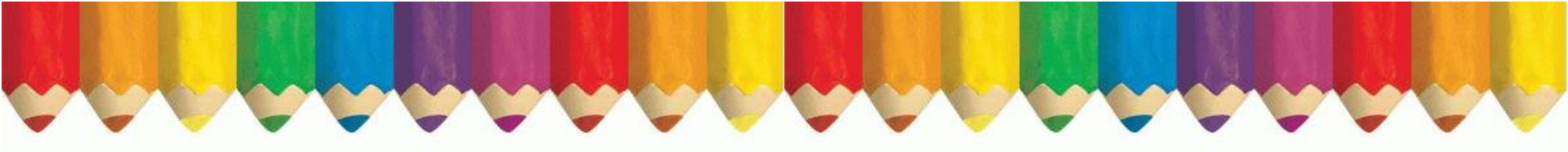
	Collage	<ul style="list-style-type: none"> • Use a combination of materials that are cut, torn and glued. • Sort and arrange materials. • Mix materials to create texture. 	<ul style="list-style-type: none"> • Select and arrange materials for a striking effect. • Ensure work is precise. • Use coiling, overlapping, tessellation, mosaic and montage. 	<ul style="list-style-type: none"> • Mix textures (rough and smooth, plain and patterned). • Combine visual and tactile qualities. • Use ceramic mosaic materials and techniques.
	Sculpture	<ul style="list-style-type: none"> • Use a combination of shapes. • Include lines and texture. • Use rolled up paper, straws, paper, card and clay as materials. • Use techniques such as rolling, cutting, moulding and carving. 	<ul style="list-style-type: none"> • Create and combine shapes to create recognisable forms (e.g. shapes made from nets or solid materials). • Include texture that conveys feelings, expression or movement. • Use clay and other mouldable materials. • Add materials to provide interesting detail. 	<ul style="list-style-type: none"> • Show life-like qualities and real-life proportions or, if more abstract, provoke different interpretations. • Use tools to carve and add shapes, texture and pattern. • Combine visual and tactile qualities. • Use frameworks (such as wire or moulds) to provide stability and form.
	Drawing	<ul style="list-style-type: none"> • Draw lines of different sizes and thickness. • Colour (own work) neatly following the lines. • Show pattern and texture by adding dots and lines. • Show different tones by using coloured pencils. 	<ul style="list-style-type: none"> • Use different hardnesses of pencils to show line, tone and texture. • Annotate sketches to explain and elaborate ideas. • Sketch lightly (no need to use a rubber to correct mistakes). • Use shading to show light and shadow. • Use hatching and cross hatching to show tone and texture. 	<ul style="list-style-type: none"> • Use a variety of techniques to add interesting effects (e.g. reflections, shadows, direction of sunlight). • Use a choice of techniques to depict movement, perspective, shadows and reflection. • Choose a style of drawing suitable for the work (e.g. realistic or impressionistic). • Use lines to represent movement.
	Print	<ul style="list-style-type: none"> • Use repeating or overlapping shapes. • Mimic print from the environment (e.g. wallpapers). • Use objects to create prints (e.g. fruit, vegetables or sponges). • Press, roll, rub and stamp to make prints. 	<ul style="list-style-type: none"> • Use layers of two or more colours. • Replicate patterns observed in natural or built environments. • Make printing blocks (e.g. from coiled string glued to a block). • Make precise repeating patterns. 	<ul style="list-style-type: none"> • Build up layers of colours. • Create an accurate pattern, showing fine detail. • Use a range of visual elements to reflect the purpose of the work.





	Textiles	<ul style="list-style-type: none">• Use weaving to create a pattern.• Join materials using glue and/or a stitch.• Use plaiting.• Use dip dye techniques.	<ul style="list-style-type: none">• Shape and stitch materials.• Use basic cross stitch and back stitch.• Colour fabric.• Create weavings.• Quilt, pad and gather fabric.	<ul style="list-style-type: none">• Show precision in techniques.• Choose from a range of stitching techniques.• Combine previously learned techniques to create pieces.
	Digital media	<ul style="list-style-type: none">• Use a wide range of tools to create different textures, lines, tones, colours and shapes.	<ul style="list-style-type: none">• Create images, video and sound recordings and explain why they were created.	<ul style="list-style-type: none">• Enhance digital media by editing (including sound, video, animation, still images and installations).
To take inspiration from the greats (classic and modern)		<ul style="list-style-type: none">• Know about and Describe the work of notable artists, artisans and designers.• Use some of the ideas of artists studied to create pieces.	<ul style="list-style-type: none">• Replicate and explain knowledge of some of the techniques used by notable artists, artisans and designers.• Create original pieces that are influenced by studies of others. Using knowledge of others work to discuss their own.	<ul style="list-style-type: none">• Give details (including own sketches) about the style of some notable artists, artisans and designers.• Show and explain how the work of those studied was influential in both society and to other artists.• Create original pieces that show a range of influences and styles.

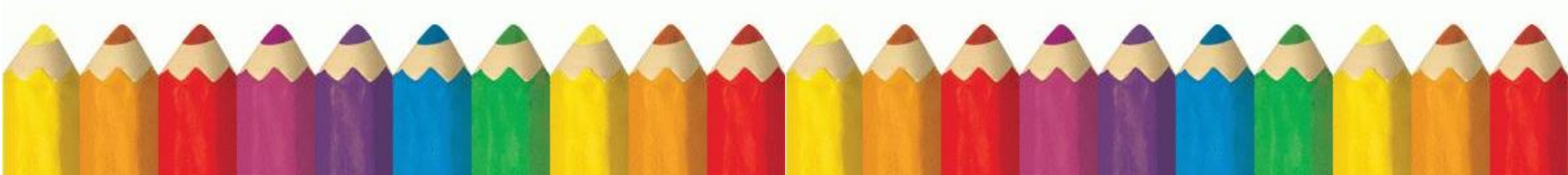


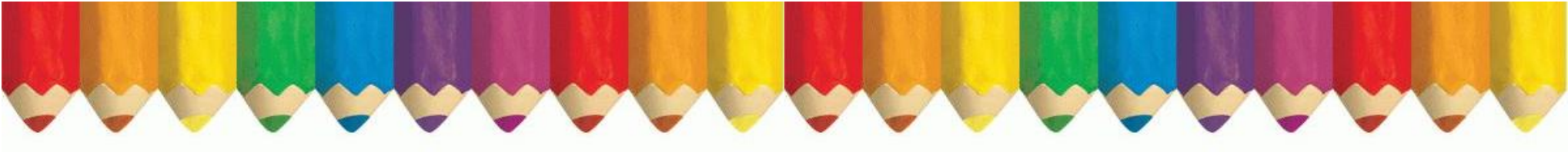


Art – Support & Challenge

Support - Generic art skills

<p>P4</p> <ul style="list-style-type: none">• Show some awareness of cause and effect in a creative process.• Explore materials systematically.• Show awareness of starting or stopping a process.• Make marks intentionally on a surface with fingers or tools.• Repeat an activity to make the same or similar effect.• Show an active interest in a range of tools and materials, taking part in familiar activities with some support.	<p>P5</p> <ul style="list-style-type: none">• Handle or use tools and materials purposefully.• Show preferences for activities and begin to carry out simple processes.• Choose tools and materials which are appropriate to the activity.• Create and apply familiar techniques to a task.	<p>P6</p> <ul style="list-style-type: none">• Show an intention to create.• Start to use tools, materials and simple actions to produce a piece of work.• Imitate the use of tools, materials and simple actions.• Practise new skills with less support, developing knowledge of the process of making.	<p>P7</p> <ul style="list-style-type: none">• Communicate ideas, events or experiences through the use of colour, form, line and tone.• Intentionally represent or symbolise an object or an emotion in either 2D or 3D work.• Purposefully choose colours or techniques.• Show confidence in using a variety of processes and make appropriate use of tools and materials.	<p>P8</p> <ul style="list-style-type: none">• Develop ideas and use materials and processes working in two and three dimensions.• Finish a piece of work following an established pattern of activity.• Know that paintings, sculptures and drawings have meaning.• Use a growing art vocabulary and begin to express meaning.	<p>Next steps ...</p> <p>Look at the Early Learning Goals linked to Art.</p>
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Challenge - Years 7, 8 and 9

Art and design opportunities	Developing ideas	Mastering techniques	Taking inspiration from the greats
<ul style="list-style-type: none">• Use a range of drawing techniques to record observations and to generate ideas.• Use a range of media including oils, watercolours, videos and installations.• Study the history of art, craft and design, including major movements from ancient to modernist periods.	<ul style="list-style-type: none">• Develop ideas and increase proficiency in their execution.• Develop a critical understanding of artists, architects and designers, expressing reasoned judgments that can inform work.	<ul style="list-style-type: none">• Increase proficiency in drawing and in handling different materials.• Analyse and evaluate work to strengthen the visual impact.	<ul style="list-style-type: none">• Apply knowledge and ideas from the great artists, architects and designers from ancient to modernist periods.

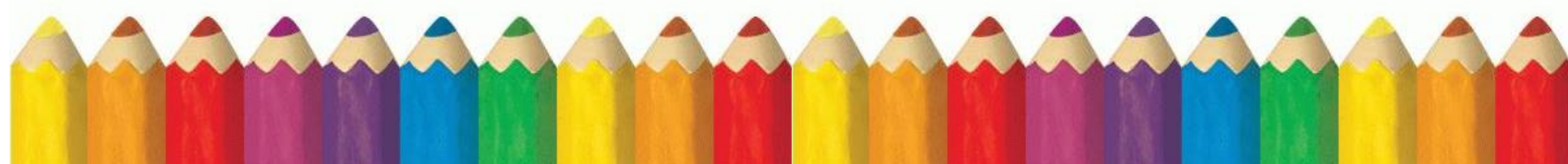


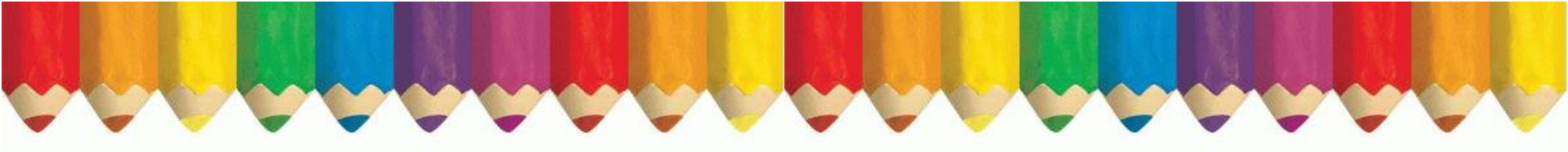


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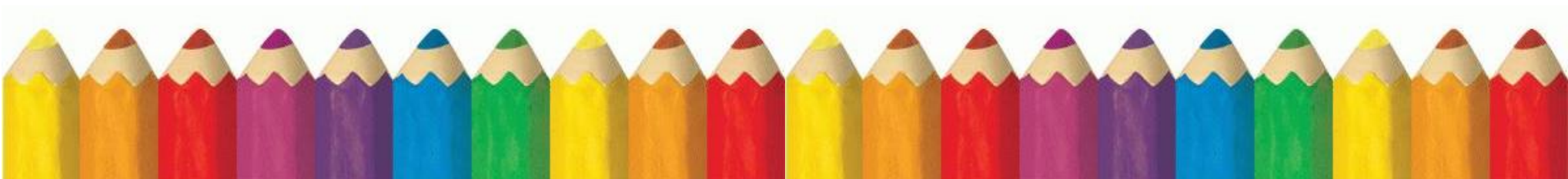
Computing





Computing – Intent, Implementation, Impact Statement

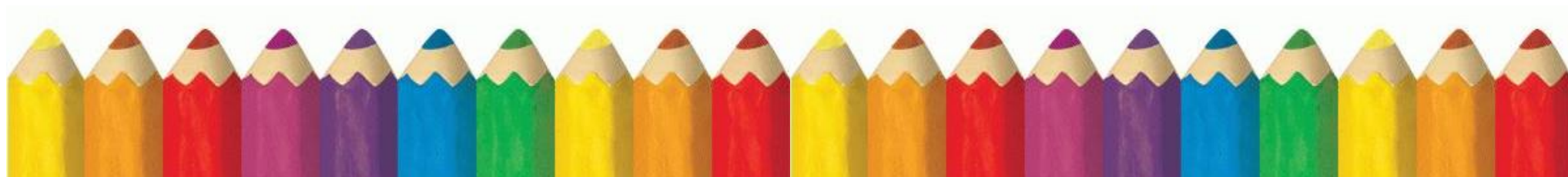
Intent
<p>In Computing, our intent is for the curriculum to develop learner’s knowledge, skills and understanding through key computational concepts and experience. The computing curriculum aims to equip learners with fundamental skills that contribute to them being life-long users of technology in a safe and effective way.</p> <p>The computing curriculum provides a focus on developing resilient learners who are able to recover from mistakes and effectively solve problems.</p> <p>We want our learners to understand that technology is a key part of everyday life and that they need to see the value and positive impact technology can have on their learning.</p> <p>The intent is to develop learners’ skills, knowledge and understanding of computing in line with the primary curriculum in order to create a platform for KS3.</p>
Implementation
<p>The curriculum includes the development of programing and debugging skills as part of coding as well as giving learners experiences of how to use technology to enhance presenting ideas, searching for information and making their own games.</p> <p>Learning is enhanced through the use of technology in other areas of the curriculum and is used to engage learners with their topic, maths, English and more.</p> <p>The safe and positive use of technology is embedded within our computing curriculum. This ensures that learners are aware of how the conduct themselves when using technology and the internet in a safe manner.</p> <p>The curriculum allows our children to work in depth, giving them the time they need to consolidate learning. It also places direct experiences at the centre of our curriculum and allows learners to become lifelong learners.</p>
Impact
<p>In Computing, the curriculum will make a profound, positive impact to the outcomes of every child.</p> <p>The impact of the curriculum, to ensure appropriate progress is being achieved, will be reviewed through:</p> <ul style="list-style-type: none">• Pupil conferencing• Teaching & Learning• Assessment processes in line with the expectations• Work sampling





Computing – Characteristics of Good Learners

- Competence in coding for a variety of practical and inventive purposes, including the application of ideas within other subjects.
- The ability to connect with others safely and respectfully, understanding the need to act within the law and with moral and ethical integrity.
- An understanding of the connected nature of devices.
- The ability to communicate ideas well by using applications and devices throughout the curriculum.
- The ability to collect, organise and manipulate data effectively.

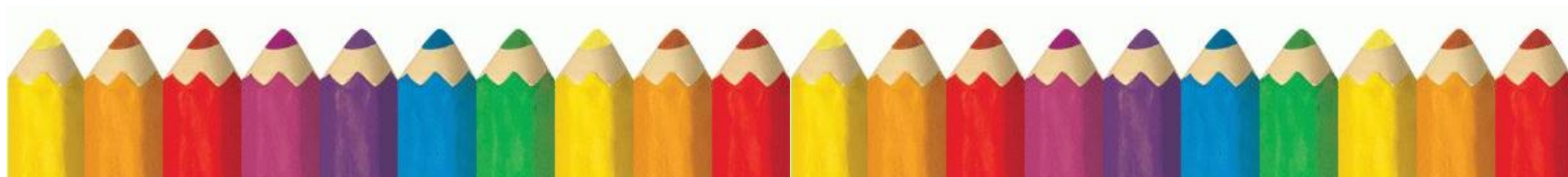




Computing – Early Years

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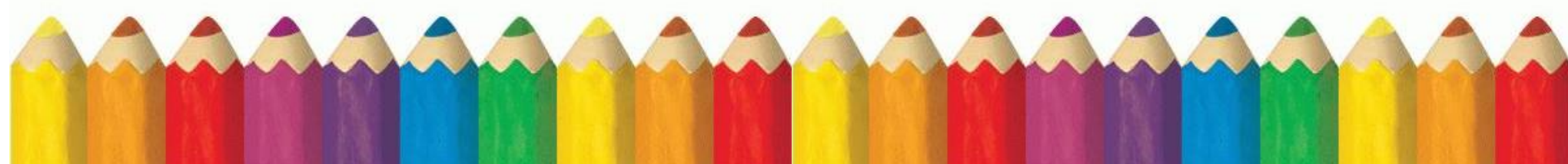
The Early Learning Goals (ELG) should be used to support teachers to make a holistic, best-fit judgement about a child's development, and their readiness for year 1. It is important to note that the ELG are not the Watcombe curriculum and do not limit teachers in their provision. The 2022 EYFS does not have any specific Computing based ELGs however children at Watcombe experience computing and technology to support their learning across the EYFS curriculum. This includes opening and closing programs, and having access to a wide range of technological resources such as Computers, iPads, Interactive White Boards and cameras. The use of technology and computing helps children to reach a good level of development and as such helps to prepare them for a Computing curriculum in Year 1.

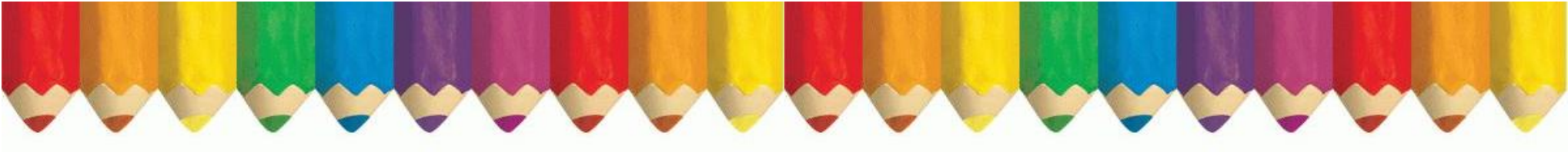




Computing – Key Learning in KS1 & KS2

		Year 1/2	Year 3/4	Year 5/6
To code (using Scratch)	Motion	<ul style="list-style-type: none"> Control motion by specifying the number of steps to travel, direction and turn. 	<ul style="list-style-type: none"> Use specified screen coordinates to control movement. 	<ul style="list-style-type: none"> Set IF conditions for movements. Specify types of rotation giving the number of degrees.
	Looks	<ul style="list-style-type: none"> Add text strings, show and hide objects and change the features of an object. 	<ul style="list-style-type: none"> Set the appearance of objects and create sequences of changes. 	<ul style="list-style-type: none"> Change the position of objects between screen layers (send to back, bring to front).
	Sound	<ul style="list-style-type: none"> Select sounds and control when they are heard, their duration and volume. 	<ul style="list-style-type: none"> Create and edit sounds. Control when they are heard, their volume, duration and rests. 	<ul style="list-style-type: none"> Upload sounds from a file and edit them. Add effects such as fade in and out and control their implementation.
	Draw	<ul style="list-style-type: none"> Control when drawings appear and set the pen colour, size and shape. 	<ul style="list-style-type: none"> Control the shade of pens. 	<ul style="list-style-type: none"> Combine the use of pens with movement to create interesting effects.
	Events	<ul style="list-style-type: none"> Specify user inputs (such as clicks) to control events. 	<ul style="list-style-type: none"> Specify conditions to trigger events. 	<ul style="list-style-type: none"> Set events to control other events by 'broadcasting' information as a trigger.
	Control	<ul style="list-style-type: none"> Specify the nature of events (such as a single event or a loop). 	<ul style="list-style-type: none"> Use IF THEN conditions to control events or objects. 	<ul style="list-style-type: none"> Know how to use IF THEN ELSE conditions to control events or objects.
	Sensing	<ul style="list-style-type: none"> Create conditions for actions by waiting for a user input (such as responses to questions like: What is your name?). 	<ul style="list-style-type: none"> Create conditions for actions by sensing proximity or by waiting for a user input (such as proximity to a specified colour or a line or responses to questions). 	<ul style="list-style-type: none"> Know how to use a range of sensing tools (including proximity, user inputs, loudness and mouse position) to control events or actions.
	Variables and lists	<ul style="list-style-type: none"> From Year 3 onwards. 	<ul style="list-style-type: none"> Use variables to store a value. Use the functions define, set, change, show and hide to control the variables. 	<ul style="list-style-type: none"> Know how to use lists to create a set of variables.
	Operators	<ul style="list-style-type: none"> From Year 3 onwards. 	<ul style="list-style-type: none"> Use the Reporter operators $() + ()$ $() - ()$ $() * ()$ $() / ()$ to perform calculations. 	<ul style="list-style-type: none"> Use the Boolean operators $() < ()$ $() = ()$ $() > ()$ $() \text{and} ()$ $() \text{or} ()$ Not()





				<p>to define conditions.</p> <ul style="list-style-type: none">• Use the Reporter operators <p>() + ()</p> <p>() - ()</p> <p>() * ()</p> <p>() / ()</p> <p>to perform calculations.</p> <p>Pick Random () to ()</p> <p>Join () ()</p> <p>Letter () of ()</p> <p>Length of ()</p> <p>() Mod () This reports the remainder</p> <p>after a division calculation</p> <p>Round ()</p> <p>() of ().</p>
To connect		<ul style="list-style-type: none">• Participate in class social media accounts.• Know and understand online risks and the age rules for sites.	<ul style="list-style-type: none">• Contribute to blogs that are moderated by teachers.• Give examples of the risks posed by online communications.• Know and understand the term 'copyright'.• Know and understand that comments made online that are hurtful or offensive are the same as bullying.• Know and understand how online services work.	<ul style="list-style-type: none">• Collaborate with others online on sites approved and moderated by teachers.• Give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems.• Know and understand that it is illegal to download copyrighted material, including music or games, without express written permission, from the copyright holder.• Know and understand the effect of online comments and show responsibility and sensitivity when online.





				<ul style="list-style-type: none">• Know and understand how simple networks are set up and used.
To communicate		<ul style="list-style-type: none">• Know how to use a range of applications and devices in order to communicate ideas, work and messages.	<ul style="list-style-type: none">• Know how to use some of the advanced features of applications and devices in order to communicate ideas, work or messages professionally.	<ul style="list-style-type: none">• Choose the most suitable applications and devices for the purposes of communication.• Know how to use many of the advanced features in order to create high quality, professional or efficient communications.
To collect		<ul style="list-style-type: none">• Know how to use simple databases to record information in areas across the curriculum.	<ul style="list-style-type: none">• Devise and construct databases using applications designed for this purpose in areas across the curriculum.	<ul style="list-style-type: none">• Select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner.





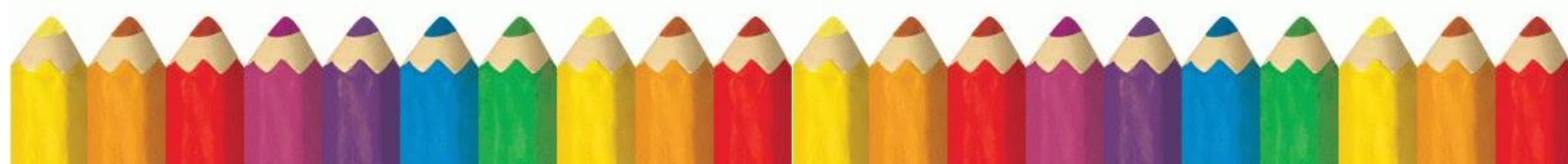
Computing – Support & Challenge

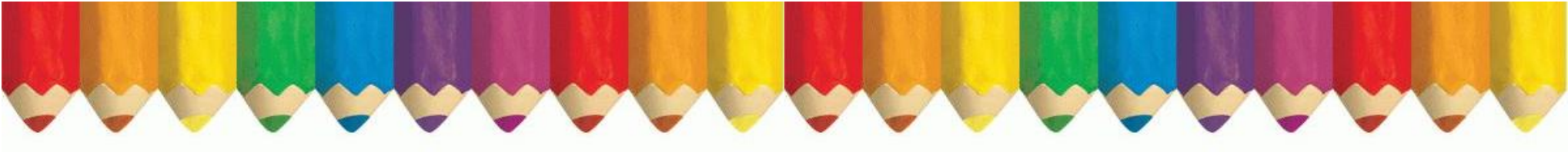
Support

P4	P5	P6	P7	P8	Next steps...
<ul style="list-style-type: none"> • Make selections to communicate meanings. • Make selections to generate familiar/preferred sounds or images. • Know that certain actions produce predictable results. 	<ul style="list-style-type: none"> • Use web or mobile applications to manipulate something on screen. • Make connections between control devices and information on screen. 	<ul style="list-style-type: none"> • Use computing to interact with other pupils and adults. • Use a keyboard or touch screen to select letters and/or images for own name. • Show an understanding that information can be stored on a computer. • Respond to simple instructions to control a device. • Operate some devices independently. 	<ul style="list-style-type: none"> • Gather information from different sources. • Use computing to communicate meaning and express ideas in a variety of contexts. • Begin to choose equipment and applications for a familiar activity. 	<ul style="list-style-type: none"> • Find similar information in different formats (such as in photographs, books, websites or television programmes). • Use computing to communicate and present ideas. • Start an application and make a choice from it. • Communicate about the uses of computing. 	<p>There are no Early Learning Goals linked to computing. See the Computing Early years page for further advice.</p>

Challenge Years 7, 8 and 9

Computing opportunities	Coding	Connecting	Communicating	Collecting
<ul style="list-style-type: none"> • Use a range of devices and applications across all curriculum subjects. • Further develop coding skills and applications. • Communicate a wide range of ideas to a variety of audiences. • Collect, manipulate and analyse data. 	<ul style="list-style-type: none"> • Design and use computer abstractions that model real world problems and physical systems. • Understand some key algorithms for sorting and searching. • Use a number of programming languages to solve a variety of computational problems. • Use data structures such as tables or arrays. • Use procedures to write modular programs. 	<ul style="list-style-type: none"> • Understand the devices and applications that make up networked computer systems and how they interact. • Explain how networks such as the internet work. • Understand how computers can monitor and control physical systems. 	<ul style="list-style-type: none"> • Undertake creative projects that involve selecting, using and combining multiple applications, across a range of devices, to achieve goals. • Create, reuse, revise and repurpose digital information and content with attention to design, intellectual property and audience. 	<ul style="list-style-type: none"> • Explain how data of various types can be represented and manipulated in the form of binary digits including numbers, text, sounds and pictures. • Collect and analyse data.





	<ul style="list-style-type: none">• Understand Boolean logic (such as AND, OR and NOT) and its use in determining which parts of a program are executed.• Explain how instructions are stored and executed within a computer system.			
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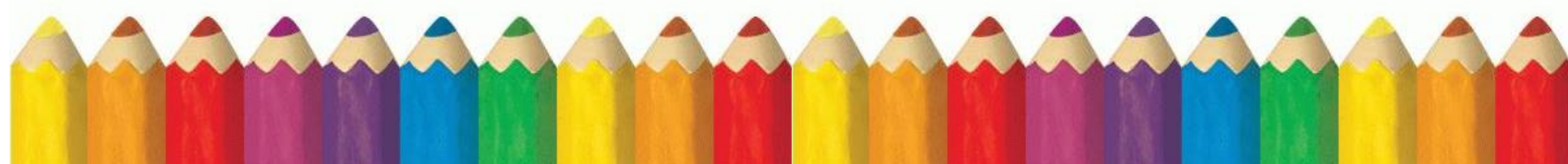




Watcombe Primary School



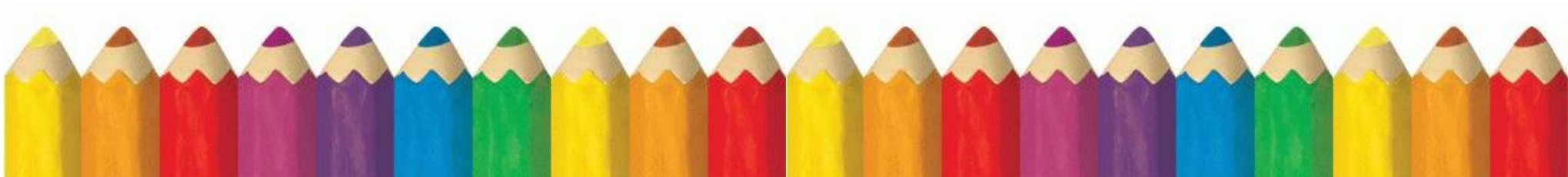
Geography





Geography – Intent, Implementation, Impact Statement

Intent
<p>In Geography, our intent is for the curriculum to promote and inspire a curiosity and fascination for our learners, about their own surroundings and the wider world. The curriculum will enable our learners to be confident to ask questions about the world around them.</p> <p>We want our learners to develop a positive attitude towards looking after the world in which we live, and learn to take responsibility for their actions in terms of developing an awareness of environmental and sustainability issues.</p> <p>The intent is to develop learners’ skills, knowledge and understanding of Geography in line with the primary curriculum in order to create a platform for future learning at KS3.</p>
Implementation
<p>The curriculum is delivered through a range of investigative and problem solving activities, both inside and outside of the classroom, which promotes engagement in the local area and a love of learning about the wider world.</p> <p>This is achieved through a clear programme of study which systematically builds upon prior knowledge and includes both human and physical geography. Our learners’ will develop their knowledge and skills, including problem solving and fieldwork in the local area. Application of knowledge is key for Geography and proves that learners are ‘thinking like a geographer’.</p>
Impact
<p>In Geography the curriculum will make a profound, positive impact to the outcomes of every child.</p> <p>The impact of the curriculum, to ensure appropriate progress is being achieved, will be reviewed through:</p> <ul style="list-style-type: none">• Pupil conferencing• Teaching & Learning• Assessment processes in line with the expectations• Work sampling

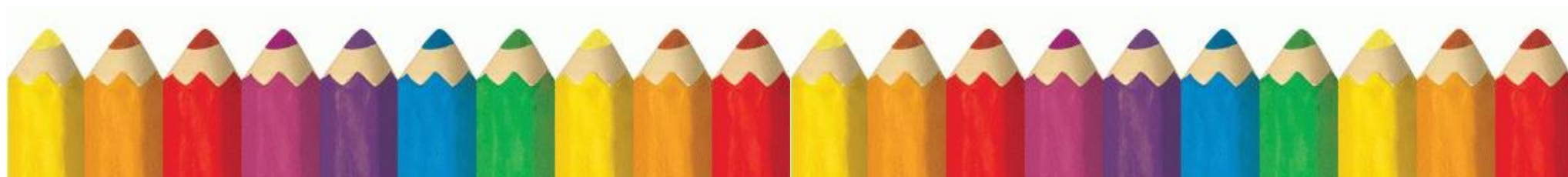




Geography – Characteristics of Good Learners

An excellent knowledge of where places are and what they are like.

- An excellent understanding of the ways in which places are interdependent and interconnected and how much human and physical environments are interrelated.
- An extensive base of geographical knowledge and vocabulary.
- Fluency in complex, geographical enquiry and the ability to apply questioning skills and use effective analytical and presentational techniques.
- The ability to reach clear conclusions and develop a reasoned argument to explain findings.
- Significant levels of originality, imagination or creativity as shown in interpretations and representations of the subject matter.
- Highly developed and frequently utilised fieldwork and other geographical skills and techniques.
- A passion for and commitment to the subject, and a real sense of curiosity to find out about the world and the people who live there.





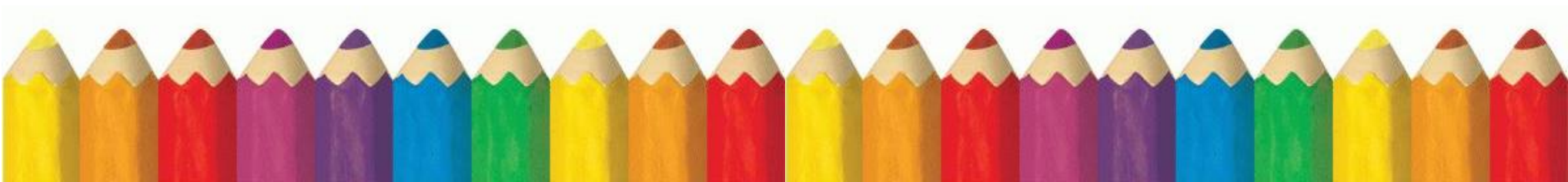
Geography – Early Years

The 2021 EYFS framework is structured very differently to the National Curriculum as it is organised across seven areas of learning rather than specific subject areas. The aim of this document is to help subject leaders to understand how the skills taught across the EYFS feed into National Curriculum subjects. The Early Learning Goals (ELG) should be used to support teachers to make a holistic, best-fit judgement about a child’s development, and their readiness for year 1. It is important to note that the ELG are not the Watcombe curriculum and do not limit teachers in their provision.

This document demonstrates which early years outcomes are prerequisite skills for Geography within the National Curriculum. Bellow you can find the most relevant ELG to Geography and the recommendations on the pathways of children’s development in ages and stages from the 2021 Development matters.

The most relevant ELG for Geography are taken from the area of Understanding of the World.

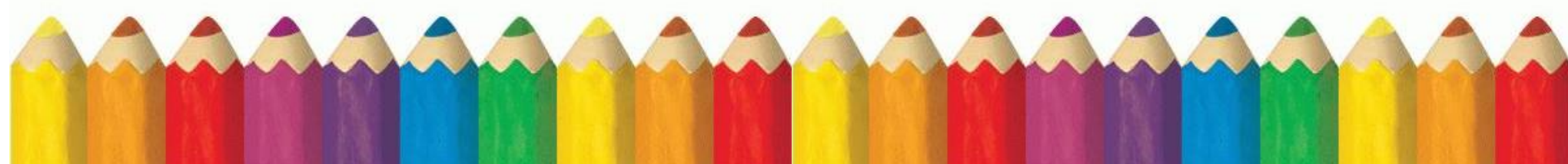
Understanding the World ELG: Past and Present		Talk about the lives of the people around them and their roles in society;
Understanding the World ELG: People, Culture and Communities		Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps; Explain some similarities and differences between life in this country and life in other countries, drawing on knowledge from stories, non-fiction texts and – when appropriate – maps.
Understanding the World ELG: The Natural World		Explore the natural world around them, making observations and drawing pictures of animals and plants; Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class;
Development Matters: Development Pathway		
Birth to Three	Explore natural materials, indoors and outside. Explore and respond to different natural phenomena in their setting and on trips.	
Three to Four Year olds	Talk about what they see, using a wide vocabulary. Know that there are different countries in the world and talk about the differences they have experienced or seen in photos.	
Children in reception.	Draw information from a simple map. Recognise some similarities and differences between life in this country and life in other countries. Recognise some environments that are different from the one in which they live.	

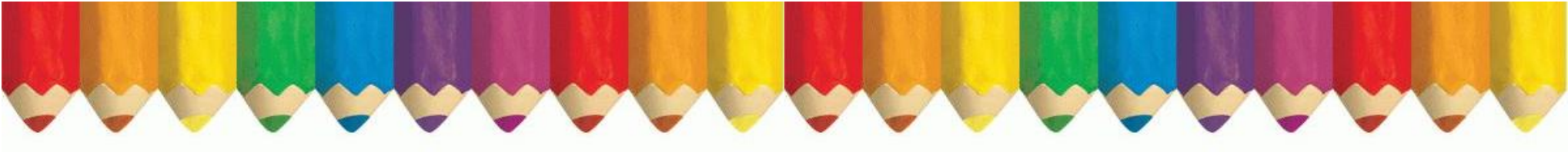




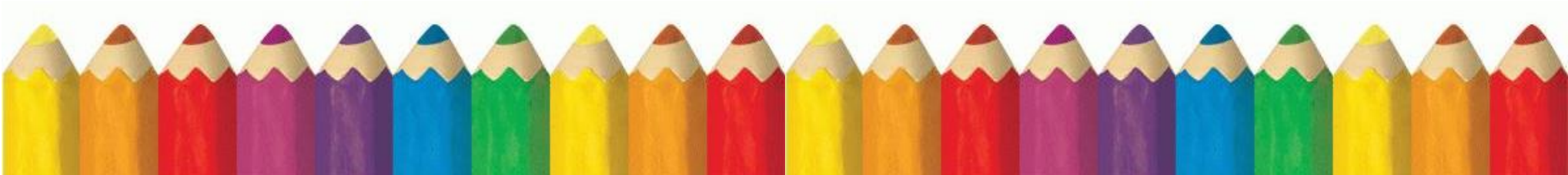
Geography – Key Learning in KS1 & KS2

	Year 1/2	Year 3/4	Year 5/6
To investigate places	<ul style="list-style-type: none"> Ask and answer geographical questions (such as: What is this place like? What or who will I see in this place? What do people do in this place?). Know and identify the key features of a location in order to say whether it is a city, town, village, coastal or rural area. Use world maps, atlases and globes to identify the United Kingdom and its countries, as well as the countries, continents and oceans studied. Use simple fieldwork and observational skills to study the geography of the school and its grounds and the key human and physical features of its surrounding environment. Use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features. Know, name, locate and identify characteristics of the 4 countries and capital cities of the United Kingdom and its surrounding seas. Know, name and locate the world's 7 continents and 5 oceans. 	<ul style="list-style-type: none"> Ask and answer geographical questions about the physical and human characteristics of a location. Explain own views about locations, giving reasons. Know how to use maps, atlases, globes and digital/computer mapping to locate countries and describe features. Use fieldwork to observe and record the human and physical features in the local area using a range of methods including sketch maps, plans and graphs and digital technologies. Use a range of resources to identify the key physical and human features of a location. Know, name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, including hills, mountains, cities, rivers, key topographical features and land-use patterns; and understand how some of these aspects have changed over time. Know, name and locate the countries of Europe and identify their main physical and human characteristics. 	<ul style="list-style-type: none"> Collect and analyse statistics and other information in order to draw clear conclusions about locations. Identify and describe how the physical features affect the human activity within a location. Know how to use a range of geographical resources to give detailed descriptions and opinions of the characteristic features of a location. Use different types of fieldwork sampling (random and systematic) to observe, measure and record the human and physical features in the local area. Record the results in a range of ways. Analyse and give views on the effectiveness of different geographical representations of a location (such as aerial images compared with maps and topological maps - as in London's Tube map). Know, name and locate some of the countries and cities of the world and their identifying human and physical characteristics, including hills, mountains, rivers, key topographical features and land-use patterns; and understand how some of these aspects have changed over time. Know, name and locate the countries of North and South America and identify their main physical and human characteristics.
To investigate patterns	<ul style="list-style-type: none"> Know and understand geographical similarities and differences through studying the human and physical geography of a small area of the United 	<ul style="list-style-type: none"> Know, name and locate the Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle and date time zones. Describe some 	<ul style="list-style-type: none"> Know, identify and describe the geographical significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and





	<p>Kingdom and of a contrasting non-European country.</p> <ul style="list-style-type: none">• Know and identify seasonal and daily weather patterns in the United Kingdom and the location of hot and cold areas of the world in relation to the Equator and the North and South Poles.• Identify land use around the school.	<p>of the characteristics of these geographical areas.</p> <ul style="list-style-type: none">• Know and describe geographical similarities and differences between countries.• Know and describe how the locality of the school has changed over time.	<p>Antarctic Circle, and time zones (including day and night).</p> <ul style="list-style-type: none">• Know and understand some of the reasons for geographical similarities and differences between countries.• Know and describe how locations around the world are changing and explain some of the reasons for change.• Know and describe geographical diversity across the world.• Know and describe how countries and geographical regions are interconnected and interdependent.
<p>To communicate geographically</p>	<ul style="list-style-type: none">• Know and use basic geographical vocabulary to refer to:<ul style="list-style-type: none">- key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather.- key human features, including: city, town, village, factory, farm, house, office, port, harbour and shop.• Use simple compass directions (north, south, east and west) and locational and directional language (e.g. near and far, left and right) to describe the location of features and routes on a map.• Devise a simple map and use and construct basic symbols in a key. Use simple grid references (A1, B1).	<ul style="list-style-type: none">• Know and describe key aspects of:<ul style="list-style-type: none">- physical geography, including: rivers, mountains, volcanoes and earthquakes and the water cycle.- human geography, including: settlements and land use.• Use the eight points of a compass, four-figure grid references, symbols and key to communicate knowledge of the United Kingdom and the wider world.	<ul style="list-style-type: none">• Know, describe and understand key aspects of:<ul style="list-style-type: none">- physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes and the water cycle.- human geography, including: settlements, land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals, and water supplies.• Use the eight points of a compass, four-figure grid references, symbols and a key (that uses standard Ordnance Survey symbols) to communicate knowledge of the United Kingdom and the world.• Create maps of locations identifying patterns (such as: land use, climate zones, population densities, height of land).





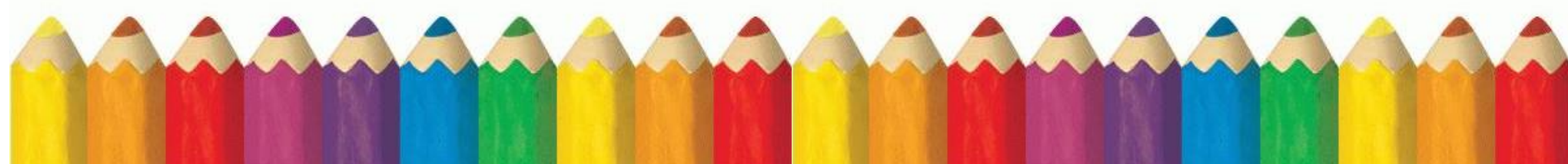
Geography – Support & Challenge

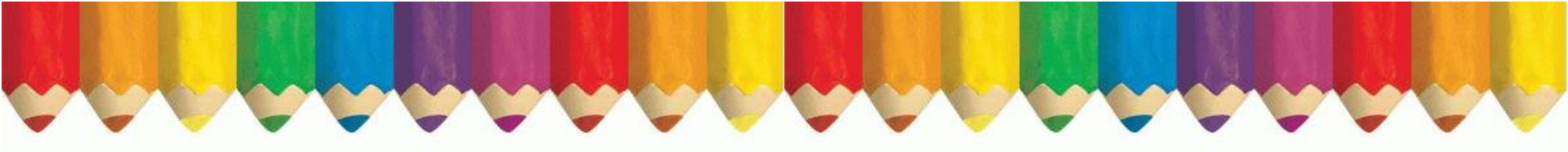
Support - Generic geography skills

P4	P5	P6	P7	P8	Next steps...
<ul style="list-style-type: none"> • Extend skills to enable exploration of the world. • Handle artefacts and materials that are given. • Know that certain actions produce predictable results. • Know familiar places and people and what they are there for. • Use gestures, signs, symbols or single words to communicate knowledge. 	<ul style="list-style-type: none"> • Consolidate a sense of place and direction. • Show awareness (through gestures, signs, symbols or words) of significant differences between specific physical/natural and human/made features of places. • Answer simple questions about places and people. • Start to sort and classify objects in terms of simple features or properties. 	<ul style="list-style-type: none"> • Understand the differences between the physical/natural and human/made features of places. • Use pictures or symbols to show familiar places and what they are for. • Answer simple questions about places and people. 	<ul style="list-style-type: none"> • Communicate preferences about the physical/natural and human/made features of places. • Begin to use symbols to represent direction and represent and record key features of a place using models or symbols. • Show awareness of caring for the immediate environment. 	<ul style="list-style-type: none"> • Recognise the physical/natural and human/made features of places. • Use simple geographical language to communicate ideas about various locations, functions and roles. • Use resources that are given along with own observations to respond to simple questions about places and people. • Recognise simple symbols or representations on maps and plans. • Show some understanding of environmental awareness and how it relates to everyday life. • Express views on features of the environment found attractive or unattractive. 	<p>Look at the Early Learning Goals linked to Geography.</p>

Challenge - Years 7, 8 and 9

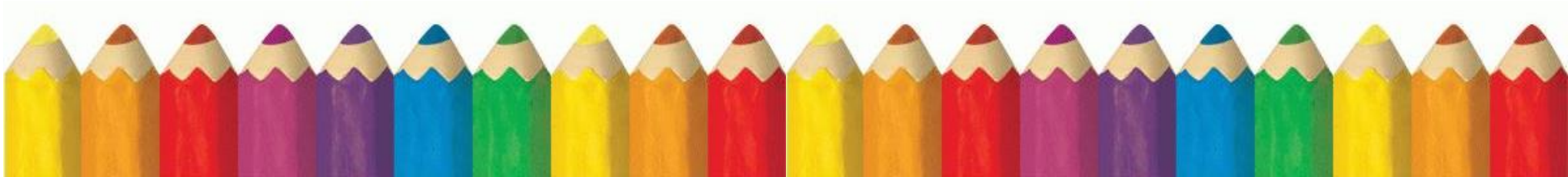
Geography opportunities	Investigating places	Investigating patterns and processes	Communicating geographically
<ul style="list-style-type: none"> • Extend locational knowledge and deepen spatial awareness of the world's countries using maps of the world to focus on Africa, South and East Asia (including China and India), the Middle East and Russia, focusing on their environmental regions, including polar and hot deserts, key physical and human characteristics, countries and major cities. 	<ul style="list-style-type: none"> • Interpret Ordnance Survey maps in the classroom and the field, including using six-figure coordinates and scale, topographical and other thematic mapping and aerial and satellite photographs. • Use Geographical Information Systems (GIS) to view, analyse and interpret places and data. 	<ul style="list-style-type: none"> • Understand geographical similarities and differences through the study of human and physical geography of a region or area within Africa. • Understand the physical geography relating to: glaciation, plate tectonics, rocks, soils, weathering, geological timescales, 	<ul style="list-style-type: none"> • Communicate knowledge of complex geographical systems.





	<ul style="list-style-type: none">• Use fieldwork to collect, analyse and draw conclusions from geographical data, using multiple sources of increasingly complex information.• Analyse and interpret different data sources.	<p>weather and climate, rivers and coasts.</p> <ul style="list-style-type: none">• Understand human geography relating to: population, international development, economic activity in the primary, secondary, tertiary and quaternary sectors, urbanisation, and the use of natural resources.• Understand how human and physical processes interact to have an impact on the form of distinctive landscapes.	
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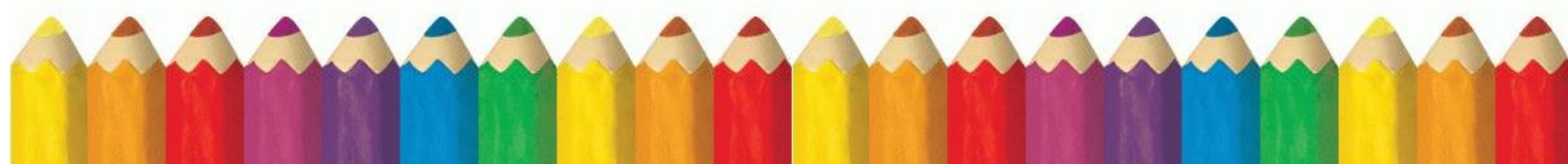




Watcombe Primary School



History





History – Intent, Implementation, Impact Statement

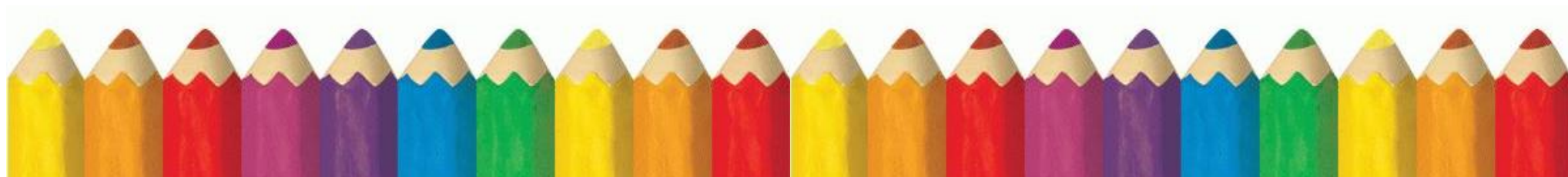
Intent
<p>In History, our intent is for the curriculum to enable learners to gain a coherent knowledge and understanding of Britain’s past and that of the wider world, and the relationship between the past, present and future. We want our learners to understand the complexity of people’s lives, the process of change, the diversity of societies and relationships between different groups, as well as their own identity and the challenges of their time.</p> <p>We aim to inspire learners’ curiosity to want to know more about the past and equip them to think and behave as historians; asking perceptive questions, thinking critically, analysing evidence, sifting arguments and developing perspective and judgement.</p> <p>The intent is to develop learners’ skills, knowledge and understanding of History in line with the primary curriculum, creating a firm foundation for future learning at KS3.</p>
Implementation
<p>The curriculum is delivered through an enquiry approach, where learners are encouraged to pose their own historical questions and given the opportunity to examine, interpret and evaluate a variety of sources in order to make deductions about the past.</p> <p>Learners are provided with opportunities to investigate how and why the world has changed, as well as what we can learn to make the world a better place. Visitors and school visits are used to develop a deeper understanding of the time periods studied and to inspire the children so that they have a life-long love of History.</p> <p>A clear programme of study is used to systematically build upon prior skills, knowledge and understanding.</p>
Impact
<p>In History the curriculum will make a profound, positive impact to the outcomes of every child.</p> <p>To ensure appropriate progress is being achieved, the impact of the curriculum will be reviewed through:</p> <ul style="list-style-type: none">• Pupil conferencing• Teaching & Learning• Assessment processes in line with the expectations• Work sampling

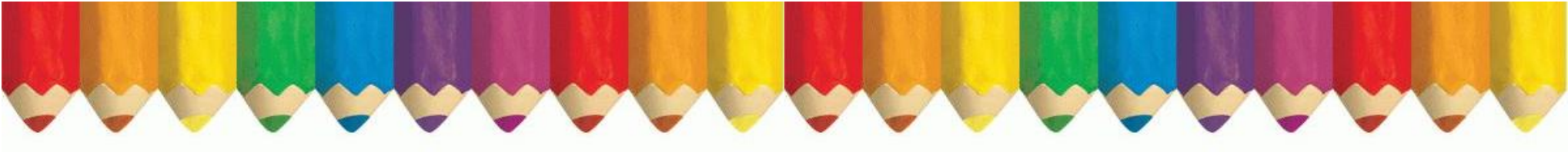




History – Characteristics of Good Learners

- An excellent knowledge and understanding of people, events, and contexts from a range of historical periods and of historical concepts and processes.
- The ability to think critically about history and communicate ideas very confidently in styles appropriate to a range of audiences.
- The ability to consistently support, evaluate and challenge their own and others' views using detailed, appropriate and accurate historical evidence derived from a range of sources.
- The ability to think, reflect, debate, discuss and evaluate the past, formulating and refining questions and lines of enquiry.
- A passion for history and an enthusiastic engagement in learning, which develops their sense of curiosity about the past and their understanding of how and why people interpret the past in different ways.
- A respect for historical evidence and the ability to make robust and critical use of it to support their explanations and judgments.
- A desire to embrace challenging activities, including opportunities to undertake high-quality research across a range of history topics.





History – Early Years

The 2021 EYFS framework is structured very differently to the National Curriculum as it is organised across seven areas of learning rather than specific subject areas. The aim of this document is to help subject leaders to understand how the skills taught across the EYFS feed into National Curriculum subjects. The Early Learning Goals (ELG) should be used to support teachers to make a holistic, best-fit judgement about a child’s development, and their readiness for year 1. It is important to note that the ELG are not the Watcombe curriculum and do not limit teachers in their provision.

This document demonstrates which early years outcomes are prerequisite skills for History within the National Curriculum. Bellow you can find the most relevant ELG to History and the recommendations on the pathways of children’s development in ages and stages from the 2021 Development matters.

The most relevant ELG for History are taken from the area of Understanding of the World.

Understanding the World ELG: Past and Present		Talk about the lives of the people around them and their roles in society; Know some similarities and differences between things in the past and now, drawing on their experiences and what has been read in class; Understand the past through settings, characters and events encountered in books read in class and storytelling.
Development Matters: Development Pathway		
Birth to Three	Repeat actions that have an effect. Explore natural materials, indoors and outside.	
Three to Four Year olds	Begin to make sense of their own life-story and family's history.	
Children in reception.	Comment on images of familiar situations in the past. Compare and contrast characters from stories, including figures from the past. Understand the effect of changing seasons on the natural world around them.	





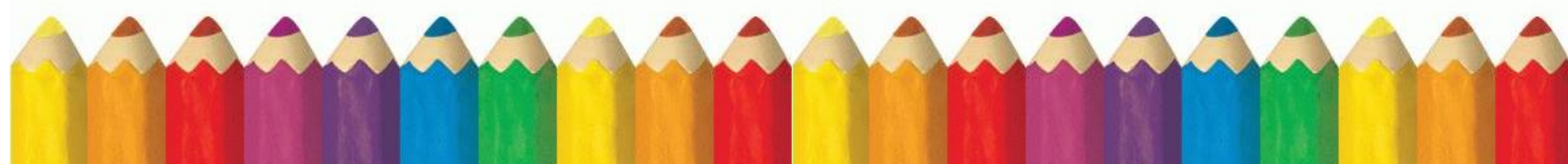
History – Key Learning in KS1 & KS2

	Year 1/2	Year 3/4	Year 5/6
To investigate and interpret the past	<ul style="list-style-type: none"> • Observe or handle evidence to ask questions and find answers to questions about the past. • Ask questions such as: What was it like for people? What happened? How long ago? • Use artefacts, pictures, stories, online sources and databases to find out about the past. • Identify some of the different ways the past has been represented. 	<ul style="list-style-type: none"> • Use evidence to ask questions and find answers to questions about the past. • Know about suitable sources of evidence for historical enquiries. • Use more than one source of evidence for historical enquiry in order to gain a more accurate understanding of history. • Know and describe different accounts of a historical event, explaining some of the reasons why the accounts may differ. • Know about causes and consequences of some of the main events and changes in history. 	<ul style="list-style-type: none"> • Use sources of evidence to deduce information about the past. • Select suitable sources of evidence, giving reasons for choices. • Use sources of information to form testable hypotheses about the past. • Seek out and analyse a wide range of evidence in order to justify claims about the past. • Know about the concept of propaganda and how historians must understand the social context of evidence studied. • Know that no single source of evidence gives the full answer to questions about the past. • Refine lines of enquiry as appropriate.
To build an overview of world history	<ul style="list-style-type: none"> • Know about and describe historical events. • Know about and describe significant people from the past. • Know that there are reasons why people in the past acted as they did. 	<ul style="list-style-type: none"> • Know and describe changes that have happened in the locality of the school throughout history. • Know about and give a broad overview of life in Britain from ancient until medieval times. • Compare some of the times studied with those of other areas of interest around the world. • Know and describe the social, ethnic, cultural or religious diversity of past society. • Know and describe the characteristic features of the past, including ideas, beliefs, attitudes and experiences of men, women and children. 	<ul style="list-style-type: none"> • Identify and know about continuity and change in the history of the locality of the school. • Know about and give a broad overview of life in Britain from medieval until the Tudor and Stuarts times. • Compare some of the times studied with those of the other areas of interest around the world. • Know and describe the social, ethnic, cultural or religious diversity of past society. • Know and describe the characteristic features of the past, including ideas, beliefs, attitudes and experiences of men, women and children.
To understand chronology	<ul style="list-style-type: none"> • Place events and artefacts in order on a time line. 	<ul style="list-style-type: none"> • Place events, artefacts and historical figures on a time line using dates. 	<ul style="list-style-type: none"> • Know and describe the main changes in a period of history (using terms such as: social,





	<ul style="list-style-type: none"> • Label time lines with words or phrases such as: past, present, older and newer. • Recount changes that have occurred in their own lives. • Know and use dates where appropriate. 	<ul style="list-style-type: none"> • Understand the concept of change over time, representing this, along with evidence, on a time line. • Know and use dates and terms to describe events. 	<p>religious, political, technological and cultural).</p> <ul style="list-style-type: none"> • Know and identify periods of rapid change in history and contrast them with times of relatively little change. • Understand the concepts of continuity and change over time, representing them, along with evidence, on a time line. • Know and use dates and terms accurately in describing events.
To communicate historically	<ul style="list-style-type: none"> • Know and use words and phrases to describe the passing of time, such as: <ul style="list-style-type: none"> - a long time ago - recently - when my parents/carers were children - years - decades - centuries • Know and understand the concept of nation and a nation's history. • Know and understand concepts such as civilisation, monarchy, parliament, democracy, and war and peace. 	<ul style="list-style-type: none"> • Know and use appropriate historical vocabulary to communicate, including: <ul style="list-style-type: none"> - dates - time period - era - change - chronology • Use literacy, numeracy and computing skills to a good standard in order to communicate information about the past. 	<ul style="list-style-type: none"> • Know and use appropriate historical vocabulary to communicate, including: <ul style="list-style-type: none"> - dates - time period - era - chronology - continuity - change - century - decade - legacy • Use literacy, numeracy and computing skills to an exceptional standard in order to communicate information about the past. • Use original ways to present information and ideas.





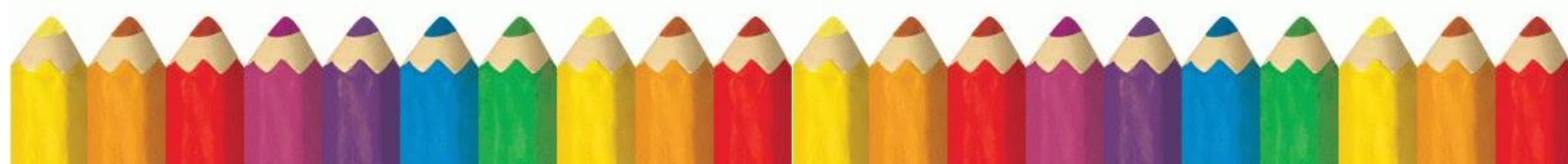
History – Support & Challenge

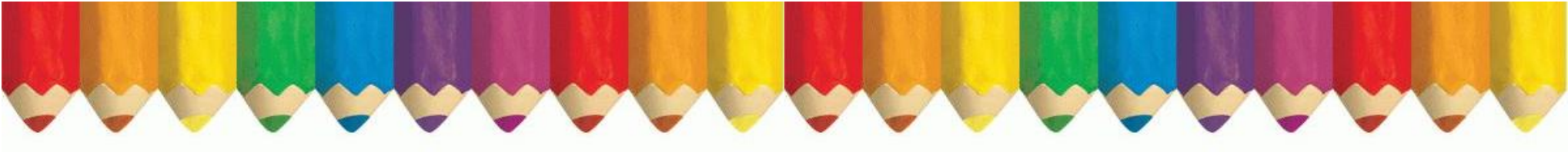
Support - Generic history skills

P4	P5	P6	P7	P8	Next steps...
<ul style="list-style-type: none"> • Recognise self and other people in pictures of the recent past. • Link the passage of time with a variety of indicators. • Use single words, signs or symbols to confirm the function of everyday items from the past. 	<ul style="list-style-type: none"> • Show appreciation of taking part in past events. • Listen and respond to familiar stories about the past. • Begin to communicate about activities and events in the past. • With prompts or support, answer simple questions about historical artefacts and buildings. 	<ul style="list-style-type: none"> • Recognise and make comments about familiar people in pictures of the more distant past. • Communicate some obvious distinctions between past and present experiences. 	<ul style="list-style-type: none"> • Begin to communicate some distinctions between the past and present in other people's lives as well as their own. • Listen to stories about people and events in the past. • Sort objects to given criteria. 	<ul style="list-style-type: none"> • Indicate if personal events and objects belong in the past or present. • Begin to use some common words, signs or symbols to indicate the passage of time. • Recount episodes from own past and some details from other historical events with prompts. • Answer simple questions about historical stories and artefacts. 	<p>Look at the Early Learning Goals linked to History</p>

Challenge - Years 7, 8 and 9

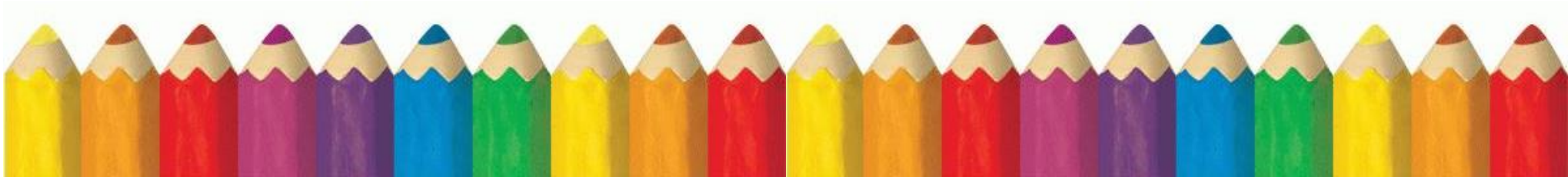
History opportunities	Using evidence to find out about the past	Building an overview of world history	Understanding chronology	Communicating historically
<ul style="list-style-type: none"> • The development of Church, state and society in Medieval Britain 1066-1509. • The development of Church, state and society in Britain 1509-1745. • Ideas, political powers, industry and empire: Britain, 1745-1901. • Challenges for Britain, Europe and the wider world 1901 to the present day. • A local history study. • The study of an aspect or theme in British history that consolidates and extends pupils' 	<ul style="list-style-type: none"> • Sift evidence and select appropriate sources. • Understand the need to use a range of information from a wide variety of sources. • Evaluate the reliability of sources. • Create and test hypotheses, using evidence to make claims. 	<ul style="list-style-type: none"> • Build upon a growing knowledge about the significant people and events that have shaped our nation and the world. • Look at history from different cultural perspectives. • Understand how some of the political, religious, social and economic circumstances that prevail today may be linked to past events throughout history. 	<ul style="list-style-type: none"> • Understand the changes within and between time periods. • Understand how some changes take centuries whilst others are more rapid and give examples with evidence. 	<ul style="list-style-type: none"> • Become fluent in the use of historical vocabulary and techniques.





<p>chronological knowledge from before 1066.</p> <ul style="list-style-type: none">• At least one study of a significant society or issue in world history and its interconnections with other world developments.				
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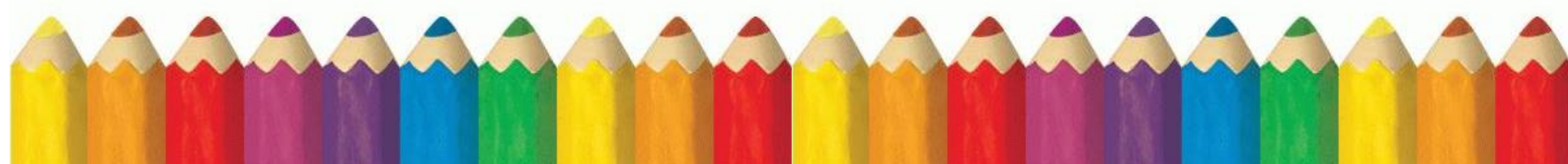


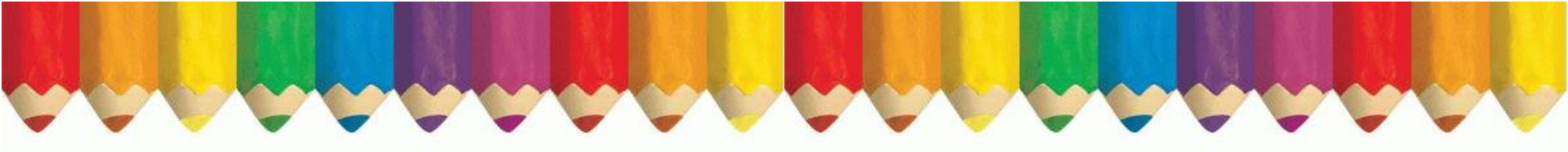


Watcombe Primary School



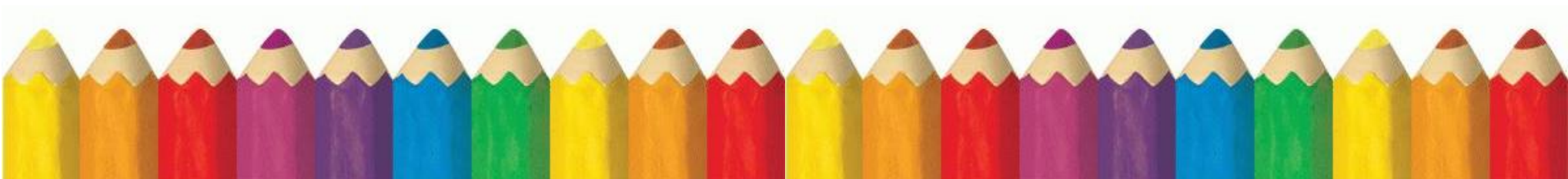
Languages - French





Languages – Intent, Implementation, Impact Statement

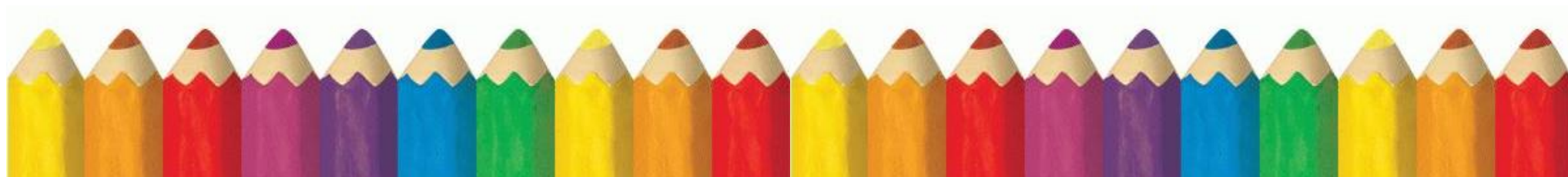
Intent
<p>We believe that the learning of a second language provides a valuable educational, social and cultural experience for our pupils and teaches them that they are part of a global multi-cultural society. It helps them to develop communication skills in speaking & listening, reading and writing. We believe that through this study we will develop children’s knowledge of how language works and will provide a solid foundation for further future language learning. It is our intent that learning another language will give the children a new and broader perspective on and curiosity about the world, encouraging them to understand both their own culture and the culture of others and excite them into wanting to explore the world and visit new places.</p> <p>Our curriculum for languages aims to ensure that all pupils:</p> <ul style="list-style-type: none">- understand and respond to spoken and written language from a variety of authentic sources- speak with increasing confidence, fluency and spontaneity, finding ways of communicating what they want to say, including through discussion and asking questions, and continually improving the accuracy of their pronunciation and intonation- can write at varying length, for different purposes and audiences, using the variety of grammatical structures that they have learnt- discover and develop an appreciation of a range of writing in the language studied.
Implementation
<p>The Languages curriculum is delivered through weekly teaching sessions to allow the children to systematically develop and refine their aural, oral and written skills. As a school we have elected to focus upon one language, French, in order for pupils to be able to make substantial progress in one language. Our school follows the Catherine Cheater scheme of work but the content is adapted to meet the needs and interests of our learners. There are two principles which underlie our approach:</p> <ul style="list-style-type: none">- children should enjoy their learning French and value the sights and sounds of France, the rhythm of the language and the real please that can be gained from contact with the written word.- Children should make real and measurable progress in their learning through innovative activities, challenging tasks and the desire to understand more and more as they listen to, speak and read French. <p>Pupils are taught to:</p> <ul style="list-style-type: none">- listen attentively to spoken language and show understanding by joining in and responding- explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words- engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help- speak in sentences, using familiar vocabulary, phrases and basic language structures- develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases- present ideas and information orally to a range of audiences- read carefully and show understanding of words, phrases and simple writing- appreciate stories, songs, poems and rhymes in the language- broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary- write phrases from memory, and adapt these to create new sentences, to express ideas clear- describe people, places, things and actions orally and in writing- understand basic grammar appropriate to the language being studied, including (where relevant): feminine, masculine and neuter forms and the conjugation of high-frequency verbs; key features and patterns of the language; how to apply these, for instance, to build sentences; and how these differ from or are similar to English. <p>To meet the needs of our pupils and their different learning styles we offer opportunities to learn through active participating in actions, rhymes, song, grammar focus, video clips, sentence structure and a range of creative ways to extend, embed and combine language skills.</p>
Impact
<p>Our Languages curriculum will ensure that all pupils develop key language skills, as set out in the national curriculum, as well as a love of learning a language and exploring an alternative culture.</p> <p>The impact of the curriculum, to ensure appropriate progress is being achieved, will be reviewed through:</p> <ul style="list-style-type: none">• Pupil conferencing• Teaching & Learning• Assessment processes in line with the expectations• Work sampling





Languages – Characteristics of Good Learners

- The confidence to speak with good intonation and pronunciation.
- Fluency in reading.
- Fluency and imagination in writing.
- A strong awareness of the culture of the countries where the language is spoken.
- A passion for languages and a commitment to the subject.
- The ability to use language creatively and spontaneously.
- An independence in their studies and the ability to draw upon a wide range of resources.



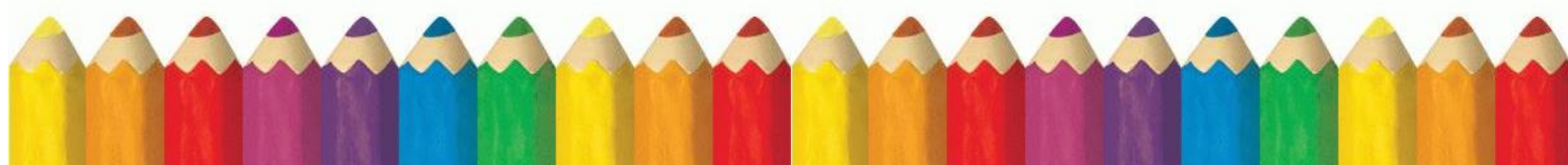


Languages – Key Learning in KS2

Overview - years 3, 4, 5 and 6 at a glance

Strand	Year 3	Year 4	Year 5	Year 6
Oracy	<ul style="list-style-type: none"> Enjoy listening to and speaking in the language Listen and respond to familiar spoken words, phrases and sentences Communicate with others using simple words and phrases and short sentences Understand conventions such as taking turns to speak, valuing the contribution of others Use correct pronunciation in spoken work 	<ul style="list-style-type: none"> Listen to and identify words and short phrases Communicate by asking and answering a wider range of questions Memorise and present a short text 	<ul style="list-style-type: none"> Prepare and practise a simple conversation re-using familiar vocabulary and structures in new contexts Understand and express simple opinions Listen attentively and understand more complex phrases and sentences Prepare a short presentation on a familiar topic 	<ul style="list-style-type: none"> Understand the main points and simple opinions in a spoken story, song or passage Perform to an audience Understand longer and more complex phrases or sentences Use spoken language confidently to initiate and sustain conversations and to tell stories
Literacy	<ul style="list-style-type: none"> Recognise and understand some familiar words and phrases in written form Read aloud in chorus, with confidence and enjoyment, from a known text Write some familiar simple words using a model Write some familiar words from memory 	<ul style="list-style-type: none"> Read and understand familiar written phrases Follow a short text while listening and reading, saying some of the text Read a wider range of words, phrases and sentences aloud Write some familiar words and phrases without help 	<ul style="list-style-type: none"> Re-read frequently a variety of short texts Make simple sentences and short texts Write words, phrases and short sentences, using a reference source 	<ul style="list-style-type: none"> Read and understand the main points and some detail from a short written passage Identify different text types and read short, authentic texts for enjoyment or information Match sound to sentences and paragraphs Write sentences on a range of topics using a model
Intercultural Understanding	<ul style="list-style-type: none"> Appreciate the diversity of languages spoken within their school Talk about the similarities and differences of social conventions between different cultures Identify the country or countries where the language is spoken Have some contact with the country/countries Recognise a children's song, rhyme or poem well known to native speakers 	<ul style="list-style-type: none"> Talk about celebrations of which they have experience Know about similar celebrations in other cultures Compare aspects of everyday life at home and abroad Identify similarities in traditional stories, building on relevant Y2/3 National Literacy Strategy Framework objectives 	<ul style="list-style-type: none"> Compare symbols, objects or products which represent their own culture with those of another country Look at further aspects of their everyday lives from the perspective of someone from another country Recognise similarities and differences between places 	<ul style="list-style-type: none"> Compare attitudes towards aspects of everyday life Recognise and understand some of the differences between people Present information about an aspect of culture

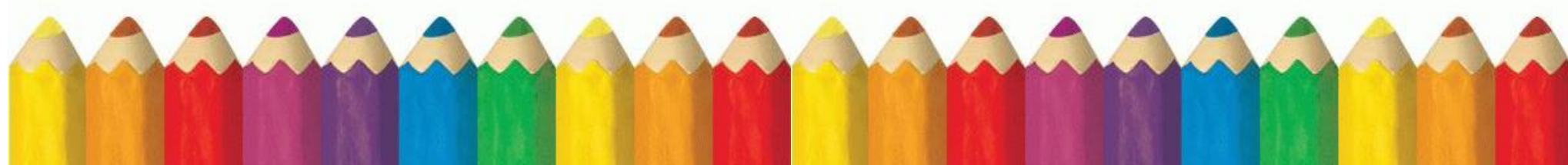
Year 3		
<p>Numbers 0-6 zéro, un, deux, trois, quatre, cinq, six</p> <p>Greetings Bonjour! Bonjour + name Bonjour, monsieur / madame / mademoiselle Comment t'appelles-tu? Joyeux Noël !</p> <p>Classroom phrases e.g. asseyez-vous, asseyez-vous correctement, croisez les bras, écoutez, levez-vous, montrez-moi, regardez, taisez-vous, touchez</p> <p>Adjectives e.g. bleu, gris, jaune, rouge, vert</p> <p>Vocabulary for spelling skills Comment ça s'écrit? some alphabet letters</p> <p>Vocabulary for sentence building Voici, et, un bonhomme de neige, le Père Noël, un renne, un chat, un chien, un cadeau, un sapin</p>	<p>Numbers 7-10 sept, huit, neuf, dix</p> <p>Phrase of celebration Bonne Année !</p> <p>Vocabulary for spelling skills consonne, voyelle more alphabet letters</p> <p>Verbs e.g. Courez, marchez, marchez sur la pointe des pieds, sautez</p> <p>Adverbs e.g. Lentement, vite</p> <p>Asking politely s'il te plaît, merci, voilà</p> <p>Masculine and feminine nouns e.g. Qu'est-ce que c'est? un pinceau, un feutre, un crayon, un stylo, une gomme, une règle</p> <p>Punctuation e.g. Virgule, point</p>	<p>Numbers 11-31 onze, douze, treize, quatorze, quinze, seize, dix-sept, dix-huit, dix-neuf, vingt, vingt et un, vingt-deux, vingt-trois, vingt-quatre, vingt-cinq, vingt-six, vingt-sept, vingt-huit, vingt-neuf, trente, trente et un</p> <p>Vocabulary from a song un tee-shirt, un pantalon, un pull, un chapeau, je mets</p> <p>Responding to questions oui, non</p> <p>Days of the week lundi, mardi, mercredi, jeudi, vendredi, samedi, dimanche aujourd'hui, c'est ... hier, c'était ... demain, ce sera...</p> <p>Taking the register présent, présente</p> <p>Punctuation e.g. ouvrez les guillemets fermez les guillemets</p>

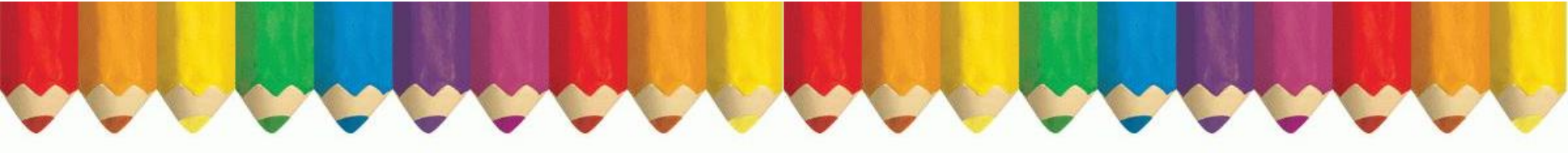




Year 4		
Questions, answers and sentence building e.g. Qui est-ce? C'est + name Ce n'est pas + name Dans le sac, il y a... et... Further adjectives e.g. blanc, brun, noir, orange, rose Vocabulary for a game Coin! Coin! Encore! Masculine nouns e.g. un âne, un avion, un caméléon, un cochon, un éléphant, un furet, un lion, un mouton, un ours, un papillon, un perroquet Feminine nouns e.g. une abeille, une araignée, une baleine, une chenille, une grenouille, une libellule, une panthère, une perruche, une poule, une souris	Adjectives that precede the noun e.g. Petit, grand Sentence starters e.g. Chez moi Dans ma chambre Dans mon placard Verbs e.g. danser, sauter, voler, nager Punctuation e.g. Point d'exclamation Point d'interrogation Months janvier, février, mars, avril, mai, juin, juillet, août, septembre, octobre, novembre, décembre ce mois-ci, c'est... le mois dernier, c'était... le mois prochain, ce sera... Definite article le, la l', les	Vocabulary from a song une culotte, une chemise, une veste, des lunettes Que fais-tu? Questions and answers e.g. Combien de cochons y a-t-il ? Il y a cinq cochons Quelle est la date aujourd'hui? C'est le + date. Qui + verb Phrases of celebration / greeting e.g. Bonnes vacances ! Joyeux anniversaire ! Bon anniversaire ! Towns in France e.g. Amiens, Angers, Avignon, Bordeaux, Calais, Cherbourg, Dieppe, Dijon, Lyon, Marseille, Nantes, Nice, Paris, Reims, Tours.

Year 5		
Masculine nouns e.g. un canard, un chameau, un cheval, un crocodile, un dauphin, un escargot, un lapin, un loup, un merle, un poisson, un renard, un robot, un singe, un zèbre. Feminine nouns e.g. une biche, une chèvre, une coccinelle, une étoile, une fourmi, une pie, une tortue, une vache. French food e.g. aioli, tapenade, rillettes de saumon, pâté de canard au poivre vert, bonbons au miel, galettes bretonnes, nougat de Montelimar, sirop de fruits Healthy food e.g. le céleri, le concombre, les carottes, les olives, les radis, les tomates Expression opinion e.g. j'aime, je n'aime pas + noun, c'est (très) bon, c'est délicieux Expressions of annoyance, impatience, disappointment, frustration, disbelief, joy, disagreement, e.g. Zut alors! Mince alors! Mais enfin! Ça alors! Tu rigoles! C'est pas vrai! C'est pas possible! Non ! Tu plaisantes ! Tu rigoles ! Ce n'est pas sérieux ! Incroyable !	Adjectives that precede the noun e.g. Jeune, joli. Adverbs of place/ sentence starters e.g. chez moi, dans le jardin, dans le poirier, dans le garage, dans le salon, dans la piscine, dans la cuisine. Adverbs of time/ frequency aujourd'hui, maintenant, souvent, quelquefois, à + time on the clock Verbs e.g. aller, être tricoter, chanter j'entends, je vois je pense que/ qu'... Simple negatives ne...pas, ne...jamais Immediate future tense aller + infinitive Asking questions, e.g. Où est la baleine ? Que fait la coccinelle ? Qu'est-ce qu'il fait ? Est-ce que le canard tricote ? Où va le lion ? Le chat, qu'est-ce qu'il va faire ? Subject pronouns, e.g. je, tu, il, elle, ils, elles Disjunctive pronouns, e.g.	Telling the time Quelle heure est-il ? Il est une heure, deux heures, trois heures, quatre heures, cinq heures, six heures, sept heures, huit heures, dix heures, neuf heures, onze heures... et demie. Il est midi, il est minuit... et demi. Expressions of annoyance, impatience, disappointment, frustration, disbelief, joy, disagreement, e.g. Zut alors! Mince alors! Mais enfin! Ça alors! Tu rigoles! C'est pas vrai! C'est pas possible! Non ! Tu plaisantes ! Tu rigoles ! Ce n'est pas sérieux ! Incroyable ! Relative pronoun qui (e.g. un cochon qui chante) Conjunction mais Numbers 32 - 60 trente-deux, trente-trois, trente-quatre, trente-cinq, trente-six, trente-sept, trente-huit, trente-neuf, quarante, quarante et un, quarante-deux, quarante-trois, quarante-quatre, quarante-cinq, quarante-six, quarante-sept, quarante-huit, quarante-neuf, cinquante, cinquante et un, cinquante-deux, cinquante-trois, cinquante-quatre, cinquante-cinq, cinquante-six, cinquante-sept, cinquante-huit, cinquante-neuf, soixante.





	moi, toi, lui, elle	
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Year 6		
<p>Masculine nouns e.g.</p> <p>un abricot, un bison, un cerf, un chapeau, un château, un citron, un corbeau, un crabe, un crapaud, un dauphin, un drapeau, un écureuil, un pigeon, un garçon, un géranium, un guépard, un hanneton, un hérisson, un héron, un hibou, un kangourou, un koala, un marteau, un moineau, un poney, un requin, un seau, un serpent, un scorpion, un taureau, un train, un wapiti .</p> <p>Feminine nouns e.g.</p> <p>une autruche, une cerise, une cigale, une fleur, une fraise, une gazelle, une girafe, une groseille, une guêpe, une hirondelle, une myrtille, une orange, une prune, une puce, une taupe, une tortue.</p> <p>Verbs in the infinitive form :</p> <p>siffler</p> <p>ronfler</p> <p>se cacher</p> <p>se promener</p> <p>lire</p> <p>dormir</p> <p>Conjugated forms in the <i>présent</i> (present tense) :</p> <p>il/elle siffle ; ils/elles sifflent</p> <p>il/elle ronfle ; ils/elles ronflent</p> <p>il/elle se cache ; ils/elles se cachent</p> <p>il/elle se promène ; ils/elles se promènent</p> <p>il/elle lit ; ils/elles lisent</p> <p>il/elle dort ; ils/elles dorment</p> <p>Conjugated forms in the <i>imparfait</i> (imperfect tense) :</p> <p>il/elle sifflait ; ils/elles sifflaient</p> <p>il/elle ronflait ; ils/elles ronflaient</p> <p>il/elle se cache ; ils/elles se cachaient</p> <p>il/elle se promenait ; ils/elles se promenaient</p> <p>il/elle lisait ; ils/elles lisaient</p> <p>il/elle dormait; ils/elles dormaient</p>	<p>Conjugated forms in the <i>passé composé</i> (perfect tense):</p> <p>j'ai/ tu as/ il a/ elle a entendu</p> <p>j'ai/ tu as/ il a/ elle a vu</p> <p>Conjugated forms of <i>aller</i> as part of <i>le futur proche</i> (near future tense):</p> <p>je vais/ il va/ elle va + infinitive</p> <p>Adverbs of place/ sentence starters e.g.</p> <p>dans la rue</p> <p>dans les bois</p> <p>dans la forêt</p> <p>derrière un buisson</p> <p>Adverbs of time</p> <p>Aujourd'hui</p> <p>Hier</p> <p>Ce matin</p> <p>Cet après-midi</p> <p>Ce soir</p> <p>Le week-end dernier</p> <p>La semaine dernière</p> <p>À (+ clock time)</p> <p>Il y a une demi-heure</p> <p>Le week-end prochain</p> <p>La semaine prochaine</p> <p>Dans une demi-heure</p> <p>Negative adverbs</p> <p>ne...pas, ne...jamais</p> <p>Asking questions, e.g.</p> <p>Qui tricote ?</p> <p>Que fait le cochon ?</p> <p>Que font les hannetons ?</p> <p>Qu'est-ce que tu as vu ?</p> <p>Qu'est-ce que tu as entendu ?</p> <p>Qu'est-ce que le loup a entendu à minuit ?</p>	<p>Telling the time - analogue clock</p> <p>Quelle heure est-il ?</p> <p>Il est une heure, deux heures, trois heures, etc</p> <p>... cinq, ... dix, ... et quart, ... vingt, ... vingt-cinq, ... et demie, ... moins vingt-cinq, ... moins vingt, ... moins le quart, ... moins dix, ... moins cinq.</p> <p>Il est midi, il est minuit... et demi.</p> <p>Relative pronoun</p> <p>qui (e.g. un cochon qui chante)</p> <p>Times Tables</p> <p>Revision of 2x, 3x, 5x, introduction of 10x, 4x, 6x</p> <p>Numbers 61 - 100</p> <p>61 - 70</p> <p>soixante et un, soixante-deux, soixante-trois, soixante-quatre, soixante-cinq, soixante-six, soixante-sept, soixante-huit, soixante-neuf, soixante-dix.</p> <p>71 - 80</p> <p>soixante et onze, soixante-douze, soixante-treize, soixante-quatorze, soixante-quinze, soixante-seize, soixante-dix-sept, soixante-dix-huit, soixante-dix-neuf, quatre-vingts.</p> <p>81 - 90</p> <p>quatre-vingt-un, quatre-vingt-deux, quatre-vingt-trois, quatre-vingt-quatre, quatre-vingt-cinq, quatre-vingt-six, quatre-vingt-sept, quatre-vingt-huit, quatre-vingt-neuf, quatre-vingt-dix.</p> <p>91 - 100</p> <p>quatre-vingt-onze, quatre-vingt-douze, quatre-vingt-treize, quatre-vingt-quatorze, quatre-vingt-quinze, quatre-vingt-seize, quatre-vingt-dix-sept, quatre-vingt-dix-huit, quatre-vingt-dix-neuf, cent.</p>





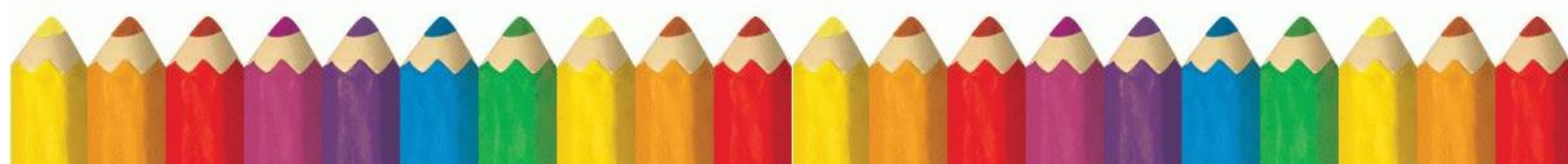
Languages – Support & Challenge

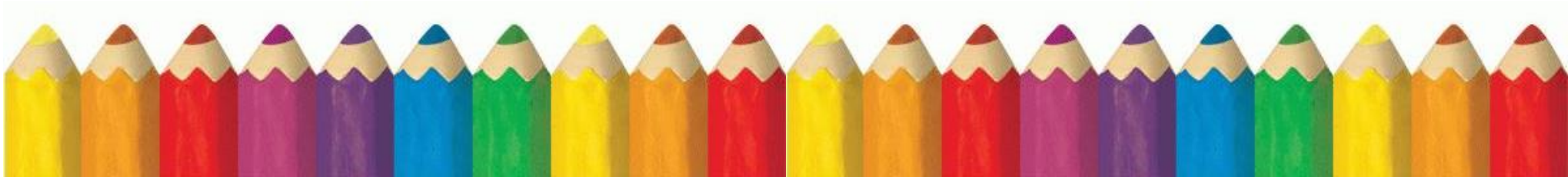
Support - Generic language skills

P4	P5	P6	P7	P8	Early Years
<ul style="list-style-type: none"> • Attempt to repeat, copy or imitate some sounds heard in the target language. • Perform familiar or simple actions on request using repetition, sign or gesture as prompts. • Listen and sometimes respond to familiar rhymes and songs in a foreign language. 	<ul style="list-style-type: none"> • Attempt one or two words in the target language in response to cues in a song or familiar phrase. • Respond to simple questions, requests or instructions about familiar events or experiences. 	<ul style="list-style-type: none"> • Respond to others in a group. • Attempt to communicate in the target language (may rely heavily upon repetition and gesture, and facial expression and/or intonation to enhance meaning). • Communicate positives and negatives in the target language in response to simple questions. • Match and select symbols for familiar words, actions or objects presented in the target language. 	<ul style="list-style-type: none"> • Introduce themselves by name in response to a question in the target language. • Contribute to using the target language for a purpose. • Listen, attend to and follow familiar interactions in the target language. 	<ul style="list-style-type: none"> • Listen attentively and know that the target language conveys meaning. • Understand one or two simple classroom commands in the target language. • Respond briefly using single words, signs or symbols. • Copy out a few words with support. • Label one or two objects. • With some support, use the target language for a purpose. 	<ul style="list-style-type: none"> • Languages are not part of the Early Years or KS1 Curriculum.

Challenge - Years 7, 8 and 9

Language opportunities	Grammar and vocabulary	Linguistic competence
<ul style="list-style-type: none"> • Choose any modern foreign language. • Develop breadth and competence in listening, speaking, reading and writing based on the sound foundation of core grammar and vocabulary. • Communicate personal and factual information that goes beyond immediate needs and interests. • Develop and justify points of view in speech and writing. 	<ul style="list-style-type: none"> • Identify and use tenses or other structures which convey the present, past and future. • Use a variety of key grammatical structures and patterns, including voices and moods. • Develop and use a wide-ranging and deepening vocabulary. • Use accurate grammar, spelling and punctuation. 	<ul style="list-style-type: none"> • Listen to a variety of forms of spoken language. • Transcribe words and short sentences. • Initiate and develop conversations. • Use important social conventions such as formal modes of address. • Express and develop ideas clearly and with increasing accuracy, both orally and in writing. • Speak coherently and confidently, with accurate pronunciation. • Read and show comprehension of written materials. • Read literary texts. • Write prose using an increasingly wide range of grammar and vocabulary. • Write creatively to express ideas and opinions. • Translate short written texts accurately into the foreign language.



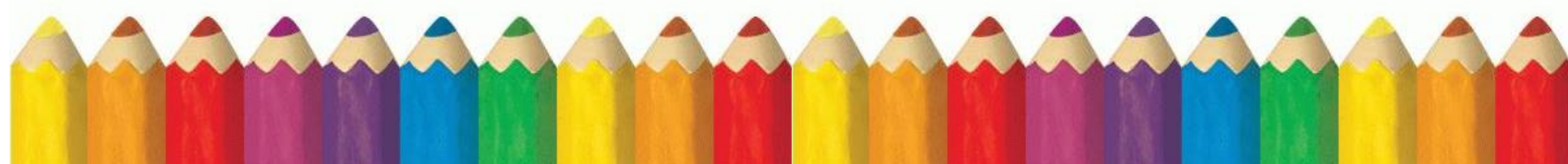


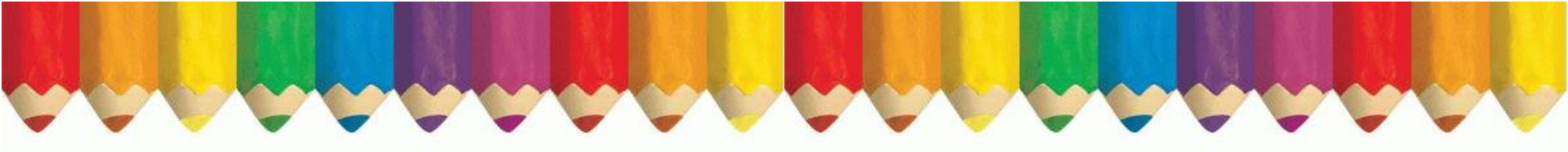


Watcombe Primary School



Music





Music – Intent, Implementation, Impact Statement

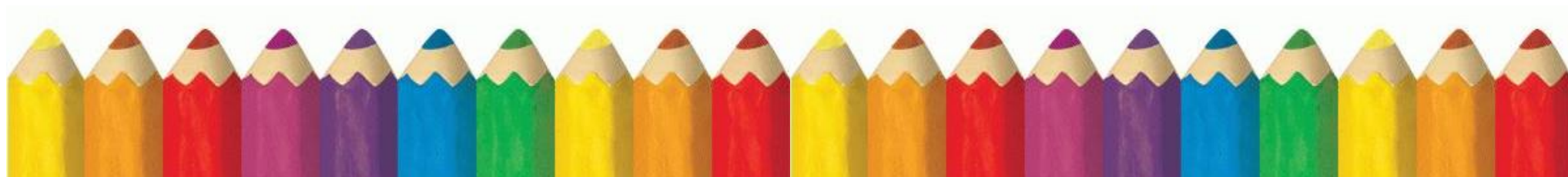
Intent
<p>In music, our intent is for the curriculum to engage and inspire pupils to develop a love of music. We aim for them to be able to explore their musicianship possibilities and in so doing to increase their self-confidence, creativity and sense of achievement.</p> <p>The curriculum will enable our learners to develop a critical engagement with music allowing them to compose, perform and listen to a wide range of high quality, varied, recorded and live music.</p> <p>We want our learners to develop a positive approach to their musical skills and enable them to explore a wide range of musical opportunities.</p> <p>The intent is to develop learners’ skills, knowledge and understanding of music in line with the primary curriculum in order to create a platform for future musical learning and opportunities.</p>
Implementation
<p>The curriculum is delivered through sessions that provide opportunities for children to experience theoretical and practical music.</p> <p>This is achieved through a clear programme of study which systematically builds upon prior knowledge and includes both the opportunity for children to perform their own music and to listen to the music of others- live and recorded.</p> <p>This will develop a variety of different knowledge and skills, including, listening, composing, understanding music notation and developing an understanding of the history of music.</p> <p>Application of knowledge is key for music and includes the opportunity to perform at regularly held concerts, being taught to play different instruments and being able to extend their learning through private lessons held in school should they wish to.</p>
Impact
<p>In music the curriculum will make a profound, positive impact to the outcomes of every child. The impact of the curriculum, to ensure appropriate progress is being achieved, will be reviewed through:</p> <ul style="list-style-type: none">• Pupil conferencing• Teaching & Learning• Assessment processes in line with the expectations





Music – Characteristics of Good Learners

- They have knowledge of a wide repertoire of music which they can use to create original, imaginative, fluent and distinctive composing and performance work.
- Their musical understanding is underpinned by high levels of aural perception, internalisation and knowledge of music, including high or rapidly developing levels of technical expertise.
- They have listened to, and performed, a range of music from different musical traditions and genres generating knowledge, awareness and appreciation of different musical styles.
- They know how musical provenance - the historical, social and cultural origins of music - contributes to the diversity of musical styles.
- They have the skills and knowledge that enables them to give precise written and verbal explanations, using musical terminology effectively, accurately and appropriately.
- They have a passion for and commitment to a diverse range of musical activities.





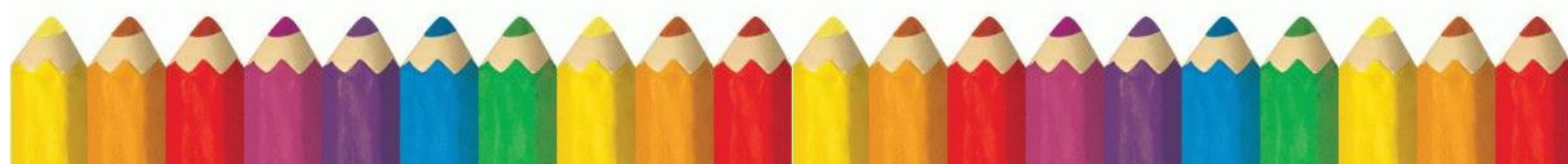
Music – Early Years

The 2021 EYFS framework is structured very differently to the National Curriculum as it is organised across seven areas of learning rather than specific subject areas. The aim of this document is to help subject leaders to understand how the skills taught across the EYFS feed into National Curriculum subjects. The Early Learning Goals (ELG) should be used to support teachers to make a holistic, best-fit judgement about a child's development, and their readiness for year 1. It is important to note that the ELG are not the Watcombe curriculum and do not limit teachers in their provision.

This document demonstrates which early years outcomes are prerequisite skills for music within the National Curriculum. Bellow you can find the most relevant ELG to music and the recommendations on the pathways of children's development in ages and stages from the 2021 Development matters.

The most relevant ELG for music are taken from the area of Expressive Arts and Design

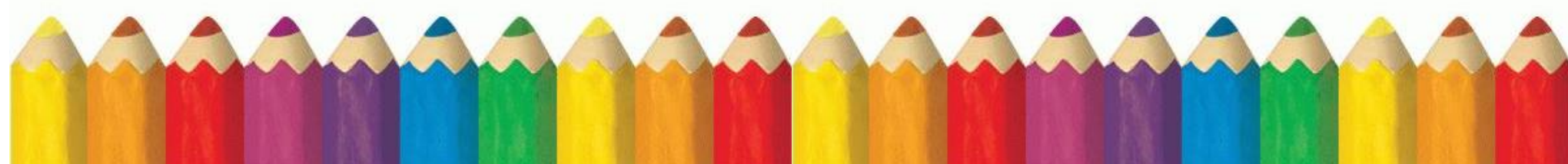
ELG: Being Imaginative and Expressive	
Sing a range of well-known nursery rhymes and songs; Perform songs, rhymes, poems and stories with others, and – when appropriate – try to move in time with music.	
Development Matters: Development Pathway	
Birth to Three	<p>Show attention to sounds and music.</p> <p>Respond emotionally and physically to music when it changes.</p> <p>Move and dance to music.</p> <p>Anticipate phrases and actions in rhymes and songs, like 'Peepo'.</p> <p>Explore their voices and enjoy making sounds</p> <p>Join in with songs and rhymes, making some sounds.</p> <p>Make rhythmical and repetitive sounds.</p> <p>Explore a range of sound makers and instruments and play them in different ways.</p> <p>Notice patterns with strong contrasts and be attracted by patterns resembling the human face.</p> <p>Enjoy and take part in action songs, such as 'Twinkle, Twinkle Little Star'.</p>
Three to Four Year olds	<p>Listen with increased attention to sounds.</p> <p>Respond to what they have heard, expressing their thoughts and feelings.</p> <p>Remember and sing entire songs.</p> <p>Sing the pitch of a tone sung by another person ('pitch match').</p> <p>Sing the melodic shape (moving melody, such as up and down, down and up) of familiar songs.</p> <p>Create their own songs or improvise a song around one they know.</p> <p>Play instruments with increasing control to express their feelings and ideas.</p>
Children in reception.	<p>Listen attentively, move to and talk about music, expressing their feelings and responses.</p> <p>Sing in a group or on their own, increasingly matching the pitch and following the melody.</p>





Music – Key Learning in KS1 & KS2

	Year 1/2	Year 3/4	Year 5/6
To perform	<ul style="list-style-type: none"> • Can take part in singing, accurately -following the melody. • Knows how to follow instructions on how and when to sing or play an instrument. • Knows how to control long and short sounds, using voice and instruments. • Is able to imitate changes in pitch. 	<ul style="list-style-type: none"> • Can sing from memory with accurate pitch. • Can sing in tune. • Can maintain a simple part within a group. • Can pronounce words within a song clearly. • Knows how to, and can demonstrate, how to control their voice. • Knows how to play notes on an instrument with care so that they are clear. • Can perform with control and awareness of others. 	<ul style="list-style-type: none"> • Can sing or play from memory with confidence. • Is confident, and has the skills, to perform solos or as part of an ensemble. • Can sing or play expressively and in tune. • Knows how to and can hold a part within a round. • Can sing a harmony part confidently and accurately. • Knows how to sustain a drone or a melodic ostinato to accompany singing. • Knows how to perform with controlled breathing (voice) and skilful playing (instrument).
To compose	<ul style="list-style-type: none"> • Knows how to create a sequence of long and short sounds. • Can clap rhythms. • Can create a mixture of different sounds (long and short, loud and quiet, high and low). • Knows how to choose sounds to create an effect. • Knows how to sequence sounds to create an overall effect. • Knows how to create short, musical patterns. • Knows how to create short, rhythmic phrases. 	<ul style="list-style-type: none"> • Knows how to compose and perform melodic songs. • Knows how to use sound to create abstract effects. • Knows how to create repeated patterns with a range of instruments. • Knows how to create accompaniments for tunes. • Knows how to use drones as accompaniments. • Knows how to choose, order, combine and control sounds to create an effect. • Knows how to use digital technologies to compose pieces of music. 	<ul style="list-style-type: none"> • Knows how to create songs with verses and a chorus. • Knows how to create rhythmic patterns with an awareness of timbre and duration. • Knows how to combine a variety of musical devices, including melody, rhythm and chords. • Can thoughtfully select elements for a piece in order to gain a defined effect. • Knows how to use drones and melodic ostinato (based on the pentatonic scale). • Knows how to convey the relationship between the lyrics and the melody. • Knows how to use digital technologies to compose, edit and refine pieces of music.
To transcribe	<ul style="list-style-type: none"> • Knows how to use symbols to represent a composition and use them to help with a performance. 	<ul style="list-style-type: none"> • Knows how to devise non-standard symbols to indicate when to play and rest. 	<ul style="list-style-type: none"> • Knows how to use the standard musical notation of crotchet, minim and semibreve to indicate how many beats to play.





		<ul style="list-style-type: none"> • Can recognise the notes EGBDF and FACE on the musical stave. • Can recognise the symbols for a minim, crotchet and semibreve and say how many beats they represent. 	<ul style="list-style-type: none"> • Knows how to read and create notes on the musical stave. • Understands the purpose of the treble and bass clefs and knows how to use them in transcribing compositions. • Understand and knows how to use the # (sharp) and ♭ (flat) symbols. • Knows, can use and understand simple time signatures.
To describe music	<ul style="list-style-type: none"> • Identify the beat of a tune. • Can recognise changes in timbre, dynamics and pitch. 	<ul style="list-style-type: none"> • Use the terms: duration, timbre, pitch, beat, tempo, texture and use of silence to describe music. • Knows how to evaluate music using musical vocabulary to identify areas of likes and dislikes. • Knows how to explain and understand layers of sounds and discuss their effect on mood and feelings. 	<ul style="list-style-type: none"> • Knows how to use a wide range of musical vocabulary to accurately describe and appraise music including: • pitch • dynamics • tempo • timbre • texture • lyrics and melody • sense of occasion • expressive • solo • rounds • harmonies • accompaniments • drones • cyclic patterns • combination of musical elements • cultural context. • Describe how lyrics often reflect the cultural context of music and have social meaning.





Music – Support & Challenge

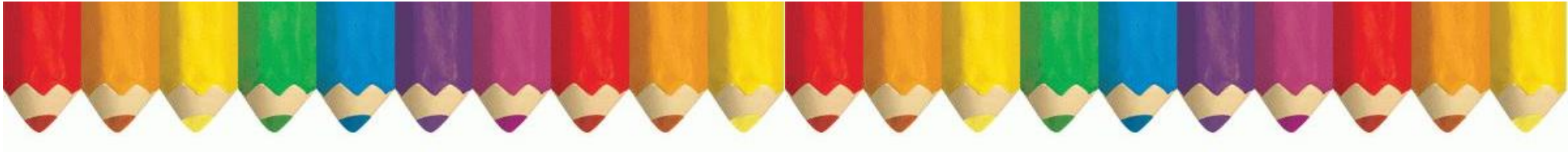
Support

P4	P5	P6	P7	P8	Next steps...
<ul style="list-style-type: none"> • Use single words, gestures, signs, objects, pictures or symbols to communicate about familiar musical activities or name familiar instruments. • With some support, listen and attend to familiar musical activities and follow and join in familiar routines. • Show an awareness of cause and effect in familiar events. • Begin to look for an instrument or noise maker played out of sight. • Repeat, copy and imitate actions, sounds or words in songs and musical performances. 	<ul style="list-style-type: none"> • Take part in simple musical performances. • Respond to signs given by a musical conductor. • Pick out a specific musical instrument when asked. • Play loudly, quietly, quickly and slowly in imitation. • Play an instrument when prompted by a cue card. • Listen to, and imitate, distinctive sounds played on a particular instrument. • Listen to a familiar instrument played behind a screen and match the sound to the correct instrument on a table. 	<ul style="list-style-type: none"> • Respond to other pupils in music sessions. • Join in and take turns in songs and play instruments with others. • Begin to play, sing and move expressively in response to the music or the meaning of words in a song. • Explore the range of effects that can be made by an instrument or sound maker. • Copy simple rhythms and musical patterns or phrases. • Play groups of sounds indicated by a simple picture- or symbol-based score. • Begin to categorise percussion instruments by how they can be played. 	<ul style="list-style-type: none"> • Listen to and describe music by describing musical experiences, using phrases or statements, combining a small number of words, signs, symbols or gestures. • Respond to prompts to play faster, slower, louder or softer. • Follow simple graphic scores with symbols or pictures and play simple patterns or sequences of music. • Listen and contribute to sound stories. • Improvise and make basic choices about the sound and instruments used. • Make simple compositions. 	<ul style="list-style-type: none"> • Listen carefully to music. • Understand and respond to words, symbols and signs that relate to tempo, dynamics and pitch, e.g. faster, slower, louder, higher and lower. • Create own simple compositions, carefully selecting sounds. • Create simple graphic scores using pictures or symbols. • Use a growing musical vocabulary of words, signs or symbols to describe what is played and heard. • Make and communicate choice when performing, playing, composing, listening and appraising. 	<p>Look at the Early Learning Goals linked to Music</p>

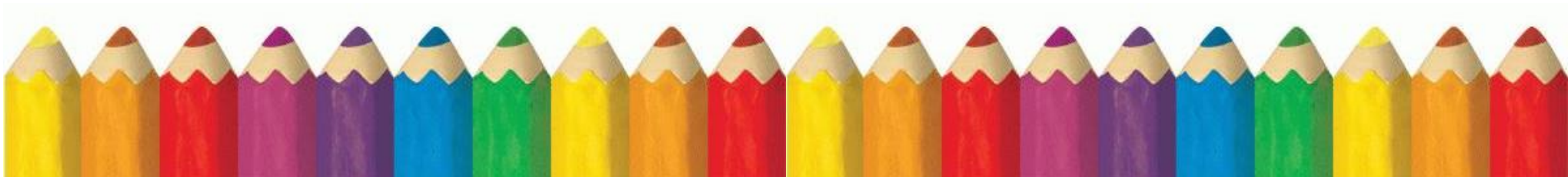
Challenge - Years 7, 8 and 9

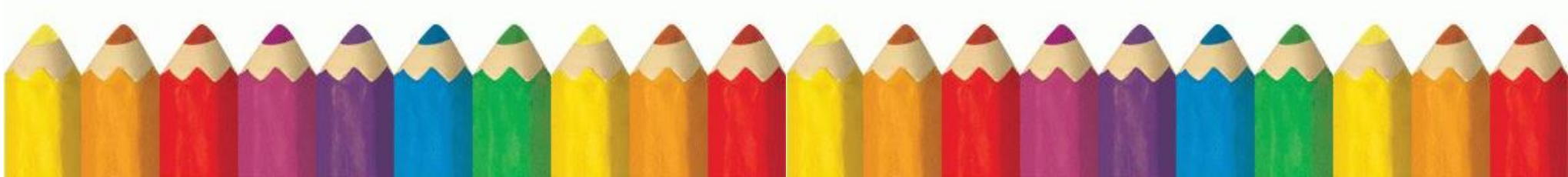
Music opportunities	Performing	Composing	Transcribing	Describing music
<ul style="list-style-type: none"> • Build on their previous knowledge through performing, composing and listening. • Play and perform in solo or ensemble contexts. 	<ul style="list-style-type: none"> • Identify and use expressively the inter-related dimensions of music with increasing sophistication (such as through extended use of tonalities, different types of scales and other musical devices). • Develop vocal and/or instrumental fluency, accuracy and expressiveness. 	<ul style="list-style-type: none"> • Compose, extend and develop musical ideas by drawing on a range of musical structures, styles, genres and traditions. 	<ul style="list-style-type: none"> • Use the stave and other relevant notations appropriately and accurately in a range of musical styles, genres and traditions. 	<ul style="list-style-type: none"> • Listen with increasing discrimination to a wide range of music from great composers. • Develop a deep understanding of the music that they perform and listen to, and its history. • Understand musical structures, styles,





				<p>genres and traditions and identify the expressive use of musical elements.</p> <ul style="list-style-type: none"> • Appreciate and understand a wide range of musical contexts and styles to inform judgments.
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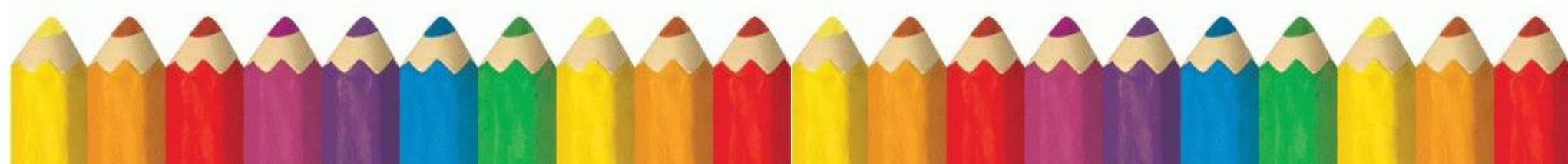


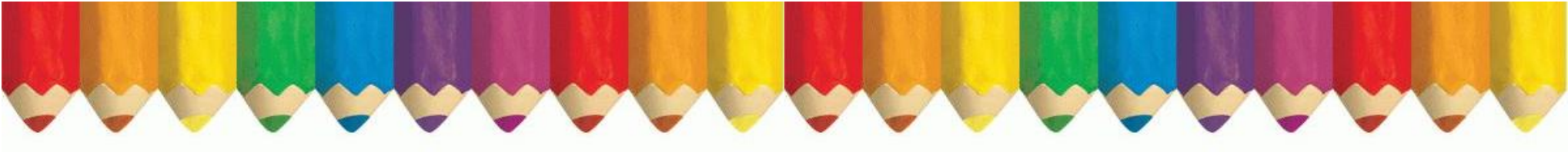


Watcombe Primary School



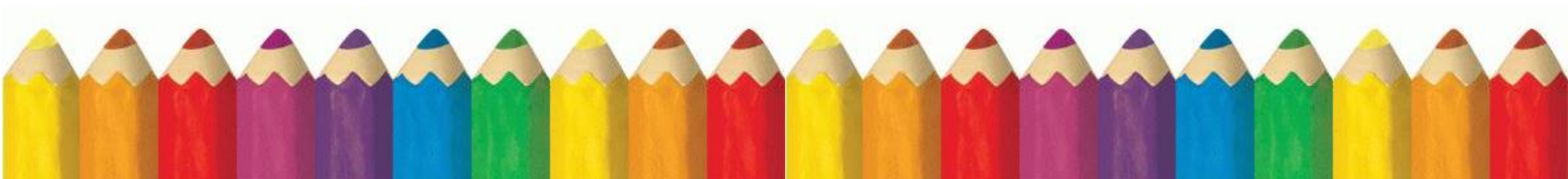
Physical Education

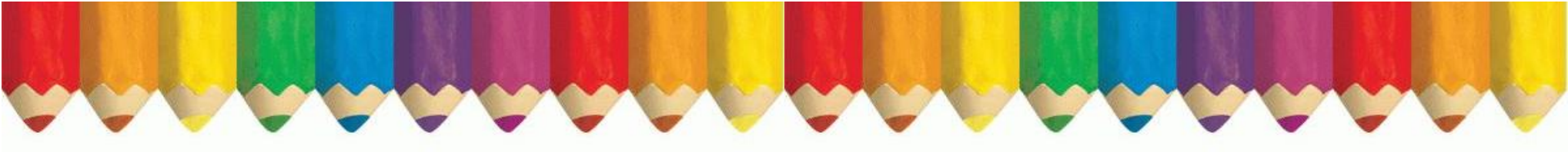




Physical Education – Intent, Implementation, Impact Statement

Intent
<p>In Physical Education, our intent is to provide a curriculum that enables and inspires all children to lead healthy, active lives.</p> <p>Learners will be physically confident and have an understanding of how to improve and how to evaluate and recognize their success. Learners will be taught to recognise and describe how their bodies feel during exercise and how this links to healthy living.</p> <p>The curriculum will provide opportunities to compete and to develop a positive, resilient attitude towards competition, embedding values such as fairness and respect.</p> <p>The intent is to develop learners’ skills, knowledge and understanding of Physical Education in line with the primary curriculum in order to create a platform for KS3.</p>
Implementation
<p>The curriculum is delivered through a broad range of sports and physical activity that will excite and engage learners. They will learn how to develop and adapt both as an individual and as part of a team.</p> <p>This is achieved through a well-structured and progressive PE curriculum which systematically builds upon prior knowledge and develops learners understanding of healthy, active lifestyles.</p> <p>This will develop a variety of different knowledge and skills, including problem solving and teamwork.</p> <p>We believe that our children should be physically active every day, whether through daily physical activity, P.E. lessons, lunchtimes or extra-curricular activities.</p>
Impact
<p>In Physical Education, the curriculum will make a profound, positive impact to the outcomes of every child not only within the Physical Education Curriculum but throughout their lives.</p> <p>The impact of the curriculum, to ensure appropriate progress is being achieved, will be reviewed through:</p> <ul style="list-style-type: none">Pupil conferencingTeaching & LearningAssessment processes in line with the expectationsData collection of engagement in sports and physical activity.





Physical Education – Characteristics of Good Learners

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Physical Education – Early Years

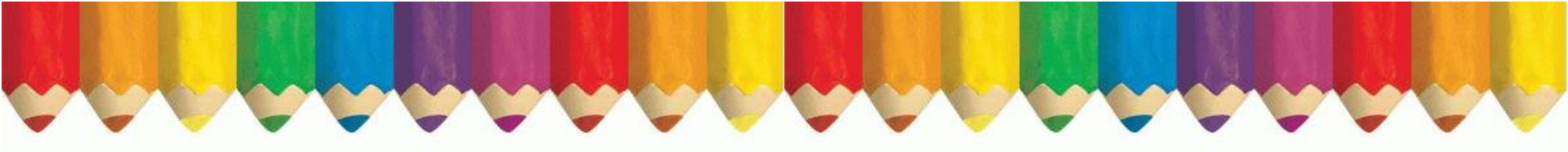
The 2021 EYFS framework is structured very differently to the National Curriculum as it is organised across seven areas of learning rather than specific subject areas. The aim of this document is to help subject leaders to understand how the skills taught across the EYFS feed into National Curriculum subjects. The Early Learning Goals (ELG) should be used to support teachers to make a holistic, best-fit judgement about a child’s development, and their readiness for year 1. It is important to note that the ELG are not the Watcombe curriculum and do not limit teachers in their provision.

This document demonstrates which early years outcomes are prerequisite skills for physical education within the National Curriculum. Bellow you can find the most relevant ELG to physical education and the recommendations on the pathways of children’s development in ages and stages from the 2021 Development matters.

The most relevant ELG for physical education are taken from the area of Physical Development

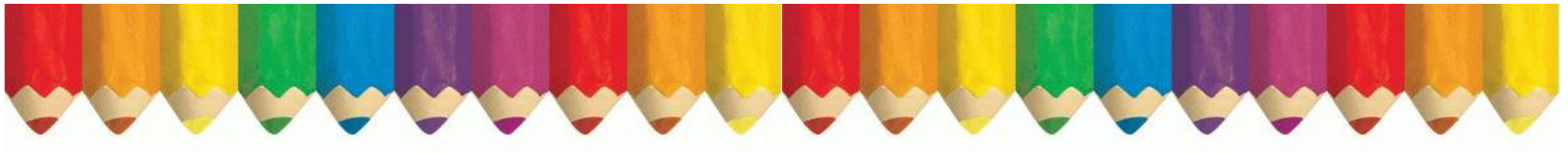
ELG: Gross Motor Skills		Negotiate space and obstacles safely, with consideration for themselves and others;
		Demonstrate strength, balance and coordination when playing;
		Move energetically, such as running, jumping, dancing, hopping, skipping and climbing.
ELG: Fine Motor Skills		Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases;
		Use a range of small tools, including scissors, paint brushes and cutlery;
		Begin to show accuracy and care when drawing.
Development Matters: Development Pathway		
Birth to Three	<div>Push their chest up with straight arms.</div> <div>Enjoy moving when outdoors and inside.</div> <div>Sit without support.</div> <div>Reach out for objects as co-ordination develops.</div> <div>Pass things from one hand to the other. Let go of things and hand them to another person, or drop them.</div> <div>Gradually gain control of their whole body through continual practice of large movements, such as waving, kicking, rolling, crawling and walking.</div> <div>Clap and stamp to music.</div> <div>Fit themselves into spaces, like tunnels, dens and large boxes, and move around in them.</div> <div>Enjoy starting to kick, throw and catch balls.</div> <div>Build independently with a range of appropriate resources.</div> <div>Walk, run, jump and climb – and start to use the stairs independently.</div> <div>Spin, roll and independently use ropes and swings (for example, tyre swings).</div> <div>Sit on a push-along wheeled toy, use a scooter or ride a tricycle.</div> <div>Use large and small motor skills to do things independently, for example manage buttons and zips, and pour drinks.</div> <div>Show an increasing desire to be independent, such as wanting to feed themselves and dress or undress.</div> <div>Start eating independently and learning how to use a knife and fork.</div> <div>Develop manipulation and control.</div> <div>Explore different materials and tools.</div>	
Three to Four Year olds	<div>Continue to develop their movement, balancing, riding (scooters, trikes and bikes) and ball skills.</div> <div>Go up steps and stairs, or climb up apparatus, using alternate feet.</div> <div>Skip, hop, stand on one leg and hold a pose for a game like musical statues.</div> <div>Use large-muscle movements to wave flags and streamers, paint and make marks.</div>	





	<p>Start taking part in some group activities which they make up for themselves, or in teams.</p> <p>Increasingly be able to use and remember sequences and patterns of movements which are related to music and rhythm.</p> <p>Match their developing physical skills to tasks and activities in the setting. For example, they decide whether to crawl, walk or run across a plank, depending on its length and width.</p> <p>Choose the right resources to carry out their own plan. For example, choosing a spade to enlarge a small hole they dug with a trowel.</p> <p>Collaborate with others to manage large items, such as moving a long plank safely, carrying large hollow blocks.</p> <p>Use one-handed tools and equipment, for example, making snips in paper with scissors.</p> <p>Use a comfortable grip with good control when holding pens and pencils.</p> <p>Show a preference for a dominant hand.</p> <p>Be increasingly independent as they get dressed and undressed, for example, putting coats on and doing up zips.</p>
Children in reception.	<p>Revise and refine the fundamental movement skills they have already acquired:</p> <p>rolling crawling walking jumping running hopping skipping climbing</p> <p>Progress towards a more fluent style of moving, with developing control and grace.</p> <p>Develop the overall body strength, co-ordination, balance and agility needed to engage successfully with future physical education sessions and other physical disciplines including dance, gymnastics, sport and swimming.</p> <p>Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons.</p> <p>Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor.</p> <p>Combine different movements with ease and fluency.</p> <p>Confidently and safely use a range of large and small apparatus indoors and outside, alone and in a group.</p> <p>Develop overall body-strength, balance, co-ordination and agility.</p> <p>Further develop and refine a range of ball skills including: throwing, catching, kicking, passing, batting, and aiming.</p> <p>Develop confidence, competence, precision and accuracy when engaging in activities that involve a ball.</p> <p>Develop the foundations of a handwriting style which is fast, accurate and efficient.</p> <p>Further develop the skills they need to manage the school day successfully:</p> <p>lining up and queuing mealtimes</p>





Physical Education – Key Learning in KS1 & KS2

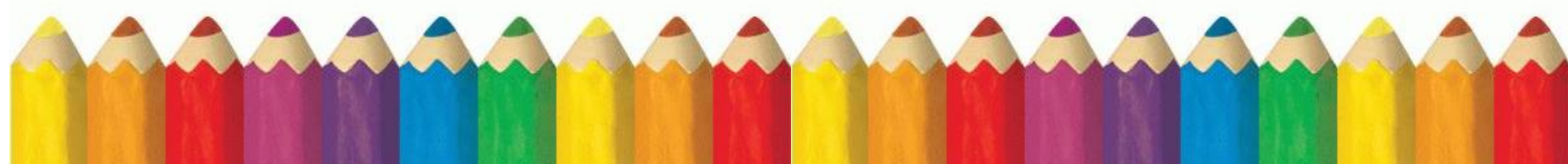




Watcombe Primary School



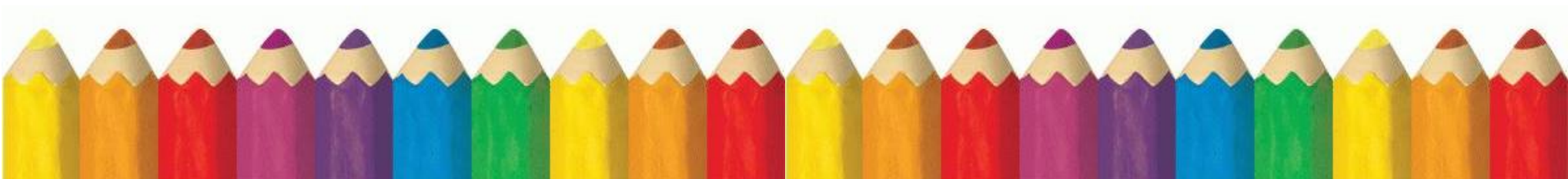
RSHE





RSHE – Intent, Implementation, Impact Statement

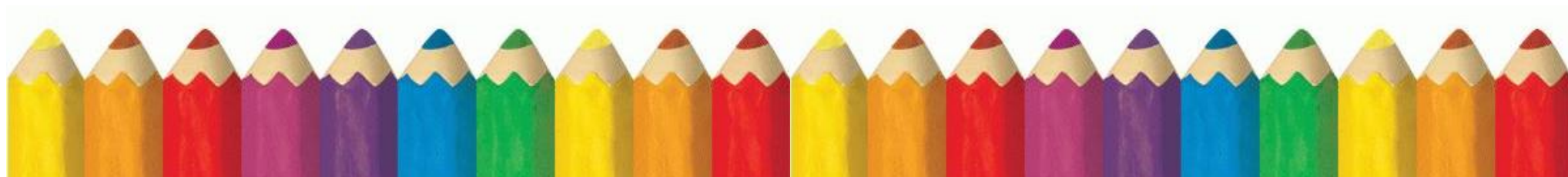
Spiritual Development Intent and Principles
Spiritual development is the development of the non-material element of a human being which animates and sustains us and, depending on our point of view, either ends or continues in some form when we die. It is about the development of a sense of identity, self-worth, personal insight, meaning and purpose. It is about the development of a pupil’s ‘spirit’. Some people may call it the development of a pupil’s ‘soul’; others as the development of ‘personality’ or ‘character’.
Moral Development Intent and Principles
Moral development is about the building, by pupils, of a framework of moral values which regulates their personal behaviour. It is also about the development of pupils’ understanding of society’s shared and agreed values. It is about understanding that there are issues where there is disagreement and it is also about understanding that society’s values change. Moral development is about gaining an understanding of the range of views and the reasons for the range. It is also about developing an opinion about different views.
Social Development Intent and Principles
Social development is about young people working effectively with each other and participating successfully in the community as a whole. It is about the development of the skills and personal qualities necessary for living and working together. It is about functioning effectively in a multi-racial, multi-cultural society. It involves growth in knowledge and understanding of society in all its aspects. This includes understanding people as well as understanding society’s institutions, structures and characteristics, economical and political principles and organisations, roles and responsibilities and life as a citizen, parent or worker in a community. It also involves the development of the inter-personal skills necessary for successful relationships.
Cultural Development Intent and Principles
Cultural development is about pupils’ understanding their own culture and other cultures in their town, region and in the country as a whole. It is about understanding cultures represented in Europe and elsewhere in the world. It is about understanding and feeling comfortable in a variety of cultures and being able to operate in the emerging world culture of shared experiences provided by television, travel and the internet. It is about understanding that cultures are always changing and coping with change. Promoting pupils’ cultural development is intimately linked with schools’ attempts to value cultural diversity and prevent racism.

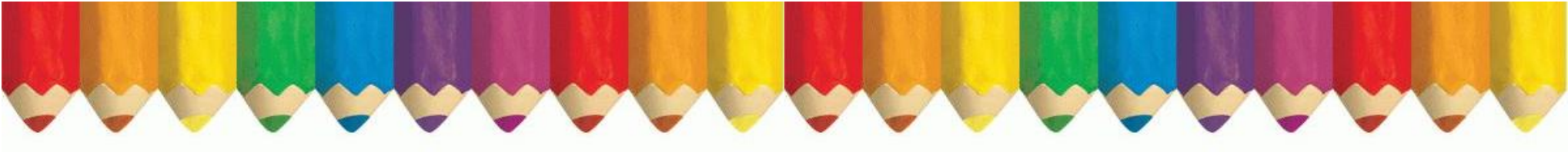




RSHE – Characteristics of Good Learners

- They will have accurate, balanced and relevant knowledge.
- They will have opportunities to turn that knowledge into personal understanding.
- They will have opportunities to explore, clarify and if necessary challenge, their own and others' values, attitudes, beliefs, rights and responsibilities.
- They will have the skills, language and strategies they need in order to live healthy, safe, fulfilling, responsible balanced lives.
- They will have the opportunities to develop positive personal attributes such as resilience, self-confidence, self-esteem, and empathy.





RSHE – Early Years

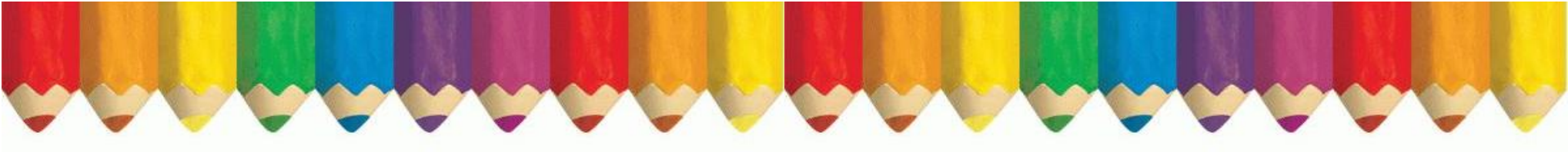
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This document demonstrates which early years outcomes are prerequisite skills for RSHE within the National Curriculum. Bellow you can find the most relevant ELG to RSHE and the recommendations on the pathways of children’s development in ages and stages from the 2021 Development matters.

The most relevant ELG for RSHE are taken from the area of Personal, Social and Emotional Development

ELG: Self-Regulation	<ul style="list-style-type: none">- Show an understanding of their own feelings and those of others, and begin to regulate their behaviour accordingly;- Set and work towards simple goals, being able to wait for what they want and control their immediate impulses when appropriate;- Give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions.
ELG: Managing Self	<ul style="list-style-type: none">- Be confident to try new activities and show independence, resilience and perseverance in the face of challenge;- Explain the reasons for rules, know right from wrong and try to behave accordingly;- Manage their own basic hygiene and personal needs, including dressing, going to the toilet, and understanding the importance of healthy food choices.
ELG: Building relationships	<ul style="list-style-type: none">Work and play cooperatively and take turns with others;- Form positive attachments to adults and friendships with peers;- Show sensitivity to their own and to others’ needs.
Development Matters: Development Pathway	
Birth to Three	<p>Find ways to calm themselves, through being calmed and comforted by their key person.</p> <p>Establish their sense of self.</p> <p>Express preferences and decisions. They also try new things and start establishing their autonomy.</p> <p>Find ways of managing transitions, for example from their parent to their key person.</p> <p>Thrive as they develop self-assurance.</p> <p>Look back as they crawl or walk away from their key person.</p> <p>Look for clues about how to respond to something interesting.</p> <p>Play with increasing confidence on their own and with other children, because they know their key person is nearby and available.</p> <p>Feel confident when taken out around the local neighbourhood and enjoy exploring new places with their key person.</p> <p>Feel strong enough to express a range of emotions.</p> <p>Grow in independence, rejecting help (“me do it”). Sometimes this leads to feelings of frustration and tantrums.</p> <p>Begin to show ‘effortful control’. For example, waiting for a turn and resisting the strong impulse to grab what they want or push their way to the front.</p> <p>Be increasingly able to talk about and manage their emotions.</p> <p>Notice and ask questions about differences, such as skin colour, types of hair, gender, special needs and disabilities, religion and so on.</p> <p>Develop friendships with other children.</p> <p>Safely explore emotions beyond their normal range through play and stories.</p> <p>Talk about their feelings in more elaborated ways: “I’m sad because...” or “I love it when ...”.</p> <p>Learn to use the toilet with help, and then independently.</p>





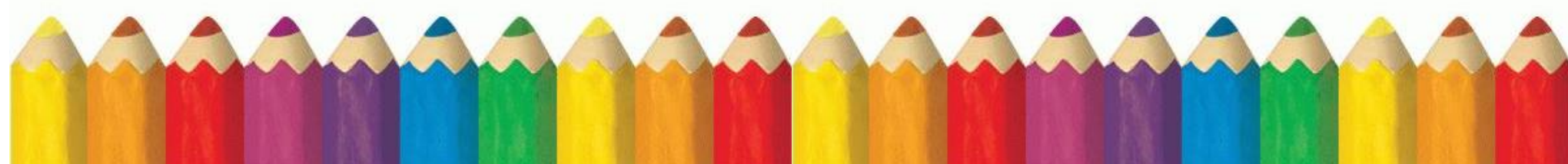
Three to Four Year olds	<p>Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen, or one which is suggested to them.</p> <p>Develop their sense of responsibility and membership of a community.</p> <p>Become more outgoing with unfamiliar people, in the safe context of their setting.</p> <p>Show more confidence in new social situations.</p> <p>Play with one or more other children, extending and elaborating play ideas.</p> <p>Find solutions to conflicts and rivalries. For example, accepting that not everyone can be Spider-Man in the game, and suggesting other ideas.</p> <p>Increasingly follow rules, understanding why they are important.</p> <p>Remember rules without needing an adult to remind them.</p> <p>Develop appropriate ways of being assertive.</p> <p>Talk with others to solve conflicts.</p> <p>Talk about their feelings using words like 'happy', 'sad', 'angry' or 'worried'.</p> <p>Understand gradually how others might be feeling.</p> <p>Be increasingly independent in meeting their own care needs, e.g., brushing teeth, using the toilet, washing and drying their hands thoroughly.</p> <p>Make healthy choices about food, drink, activity and tooth brushing.</p>
Children in reception.	<p>See themselves as a valuable individual.</p> <p>Build constructive and respectful relationships.</p> <p>Express their feelings and consider the feelings of others.</p> <p>Show resilience and perseverance in the face of challenge.</p> <p>Identify and moderate their own feelings socially and emotionally.</p> <p>Think about the perspectives of others.</p> <p>Manage their own needs. • Personal hygiene</p> <p>Know and talk about the different factors that support their overall health and wellbeing: • regular physical activity • healthy eating • tooth brushing • sensible amounts of 'screen time' • having a good sleep routine • being a safe pedestrian.</p>





RSHE – Key Learning in KS1 & KS2

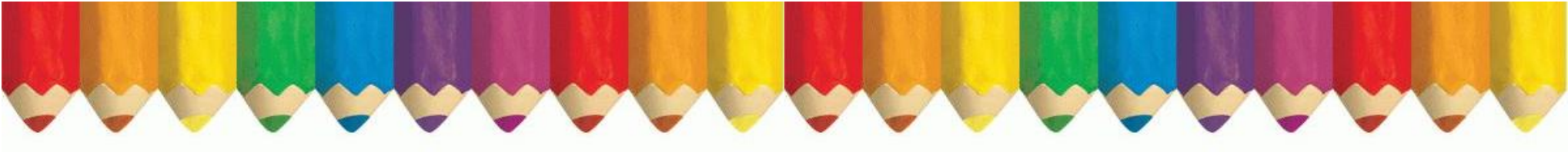
Core themes	Yrs 1/2	Yrs 3/4	Yrs 5/6
1. Health and Wellbeing	<p>Pupils can–</p> <p><u>HEALTHY LIFESTYLES</u></p> <ul style="list-style-type: none"> Keep our bodies healthy Recognise likes/dislikes and choices Recognise and manage different feelings. Understand the importance of personal hygiene <p><u>GROWING & CHANGING</u></p> <ul style="list-style-type: none"> Understand change, loss and getting older. Name main body parts (including external genitalia) Understand their personal identity. Explain their likes, choices and strengths. <p><u>KEEPING SAFE</u></p> <ul style="list-style-type: none"> Understand the importance of what goes into our bodies. understand rules for keeping physically and emotionally safe. Understand their personal identity. Recognise own and different family networks. Recognise people who are responsible for keeping us safe. First Aid: emergency calls / head injuries 	<p>Pupils can –</p> <p><u>HEALTHY LIFESTYLES</u></p> <ul style="list-style-type: none"> Make informed choices Understand the importance of a balanced diet. Understand the importance of personal hygiene. <p><u>GROWING & CHANGING</u></p> <ul style="list-style-type: none"> Explain their aspirations and goals. Recognise and manage feelings. Understand change, loss and getting older. <p><u>KEEPING SAFE</u></p> <ul style="list-style-type: none"> Explain risk, danger and hazard. Understand pressures on behaviour. Understand rules for safety and how to get help. Explain how to keep physically and emotionally safe on and offline. Understand we have responsibilities for keeping ourselves and others safe. First Aid: emergency calls / head injuries. Y3: bites & stings / Y4: Asthma / Basic life support 	<p>Pupils can –</p> <p><u>HEALTHY LIFESTYLES</u></p> <ul style="list-style-type: none"> Understand what influences our choices about health and wellbeing. <p><u>GROWING & CHANGING</u></p> <ul style="list-style-type: none"> Explain their aspirations, goals and feeling valued. Understand intensity of our and others' feelings. Understand conflicting emotions. Understand change, bereavement, loss, grief and transitions. Explain feelings and changes associated with puberty, including body image, human reproduction and conception. <p><u>KEEPING SAFE</u></p> <ul style="list-style-type: none"> recognise the importance of keeping physically and emotionally safe on and offline. Assess and manage risks. Be independent and have a sense of responsibility. Understand pressures on behaviour. Cope with peer and media pressures. Manage emergencies. Explain the importance of bad habits such as alcohol, tobacco and drugs. First Aid: emergency calls / head injuries. Y5: Bleeding & burns and scolds / Y6: Allergies / basic life support / choking
2. Relationships	<p><u>FEELINGS & EMOTIONS</u></p> <ul style="list-style-type: none"> Recognise feelings in self. Understand they are special and other people who are special to them. Understand their own behaviour and know that people's bodies and feelings can be hurt. <p><u>HEALTHY RELATIONSHIPS</u></p>	<p><u>FEELING & EMOTIONS</u></p> <ul style="list-style-type: none"> Recognise and manage different feelings. Understand the issues surrounding keeping something confidential or secret. Recognise and manage dares. <p><u>HEALTHY RELATIONSHIPS</u></p> <ul style="list-style-type: none"> Recognise the aspects of a healthy relationship. 	<p><u>FEELINGS & EMOTIONS</u></p> <ul style="list-style-type: none"> Recognise and respond to others' feelings. Understand the issues surrounding keeping a confidence or a secret. Recognise and manage dares. <p><u>HEALTHY RELATIONSHIPS</u></p> <ul style="list-style-type: none"> Understand what constitutes a healthy relationship.





	<ul style="list-style-type: none"> • Understand the issues surrounding secrets and surprises. • Recognise the value of working together. • Understand boundaries and relationships. • Resolve conflict. • Understand what is teasing and bullying. • <u>VALUING DIFFERENCE</u> • Show the attributes of kindness/fairness. • Share and respect opinions. • Recognise and respect similarities and differences. 	<ul style="list-style-type: none"> • Understand physical boundaries within different relationships. • Recognise the value of working together. • Manage behaviour. • Resolve conflict. • <u>VALUING DIFFERENCE</u> • Recognise stereotypes. • Understand different types of relationships. • Respect similarities and differences. • Understand bullying and discrimination. • Respect others' feelings and opinions. 	<ul style="list-style-type: none"> • Recognise how actions and behaviour can affect relationships. • Understand boundaries within relationships. • Recognise the value of working together. • Understand the importance of conflict negotiation. • <u>VALUING DIFFERENCE</u> • Challenge stereotypes. • Understand different types of relationships. • Maintain relationships. • Respect similarities and differences. • Understand bullying, discrimination and prejudice.
3. Living in the Wider World	<p><u>RIGHTS & RESPONSIBILITIES</u></p> <ul style="list-style-type: none"> • Contribute to life in the classroom. • Construct and follow rules. • Be aware of needs of people and other living things. • Understand they belong to communities and groups. • <u>TAKING CARE OF THE ENVIRONMENT</u> • Explain improvements and harm to local environments. • Recognise ways of looking after local environments. • <u>MONEY MATTERS</u> • Explain there are different sources of money. • Recognise uses for money. • Understand about spending and saving. • Recognise the role of money in their lives. • Manage money and keep it safe. • Understand there are choices about spending. • Recognise influences on spending choices. 	<ul style="list-style-type: none"> • <u>RIGHTS & RESPONSIBILITIES</u> • Understand issues concerning health and wellbeing. • Explain the purpose of rules and laws. • Explain human rights. • Understand different cultures, customs and traditions of people living in the uk. • Understand anti-social behaviour and their consequences. • Know the difference between rights and responsibilities. • Critique media information. • <u>TAKING CARE OF THE ENVIRONMENT</u> • Recognise the need to take care of the environment. • Explain our responsibilities towards our environment. • recognise their part of the community. • Understand different groups that support our communities and environment. • Understand the lives of other people around the world. • Recognise how resources are allocated to communities. • <u>MONEY MATTERS</u> 	<ul style="list-style-type: none"> • <u>RIGHTS & RESPONSIBILITIES</u> • Discuss topical issues concerning health and wellbeing. • Explain the purpose of rules and laws. • Talk about the precedence of human rights over other laws, practices and traditions. • Understand the consequences of anti-social behaviour. • Know the difference between rights, responsibilities and duties. • Resolve difference, make decisions and choices. • Know about the range of religious and ethnic identities in the UK. • Understand how the media present information. • <u>TAKING CARE OF THE ENVIRONMENT</u> • Understand responsibilities towards and how people contribute to communities and the environment. • Understand the lives of people living in other places. • Understand how the earth's resources are allocated. • Resolve differences. • <u>MONEY MATTERS</u> • Understand finance.





		<ul style="list-style-type: none">• Understand the role that money plays in their lives.• Understand about borrowing, debt, interest and enterprise.	<ul style="list-style-type: none">• Understand issues around earning money and dedeuctions.• Understand about enterprise.
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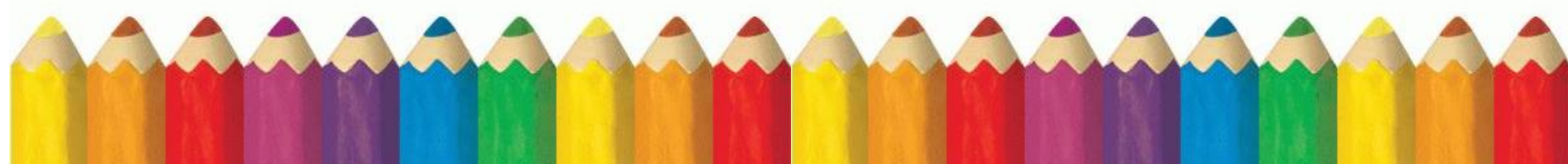




Watcombe Primary School



Religious Education





Religious Education– Intent, Implementation, Impact Statement

Intent

The principal aim of religious education is to explore what people believe and what difference this makes to how they live, so that pupils can gain the knowledge, understanding and skills needed to handle questions raised by religion and belief, reflecting on their own ideas and ways of living.

- Religious Education will contribute to children and young people’s education in schools by provoking challenging questions and meaning and purpose in life, beliefs about God, ultimate reality, issues of right and wrong and what it means to be human.
- In RE pupils will learn about religion and beliefs in local, national and global contexts, to discover, explore and consider different answers to these questions.
- Pupils will learn to weigh up the value of wisdom from different sources, to develop and express their insights in response and to agree or disagree respectfully.
- Teaching will equip pupils with systematic knowledge and understanding of a range of religions and beliefs, enabling them to develop their ideas, values and identities.
- RE will develop in pupils an aptitude for dialogue so that they can participate positively in our society, with its diverse religions and beliefs.
- Pupils will gain and deploy the skills needed to understand, interpret and evaluate texts, sources of wisdom and authority and other evidence. They will learn to articulate clearly and coherently their personal beliefs and ideas, values and experiences while respecting the right of others to differ.

The RE teaching and learning approach in Devon and Torbay

Making sense of beliefs

Identifying and making sense of core religious and non-religious beliefs and concepts; understanding what these beliefs mean within their traditions; recognising how and why sources of authority (such as texts) are used, expressed and interpreted in different ways, and developing skills of interpretation.

Making connections

Evaluating, reflecting on and connecting the beliefs and practices studied; allowing pupils to challenge ideas studied, and the ideas studied to challenge pupils’ thinking; discerning possible connections between these and pupils’ own lives and ways of understanding the world.

Understanding the impact

Examining how and why people put their beliefs into action in diverse ways, within their everyday lives, within their communities and in the wider world.

Implementation

The agreed syllabus requires that all pupils develop understanding of Christianity in each key stage. In addition, across the age range, pupils will develop understanding of the principal religions represented in the UK, in line with the law. These are; Islam, Hinduism, Sikhism, Buddhism and Judaism. Furthermore, children from families where non-religious worldviews are held are represented in almost all of our classrooms. These worldviews, including for example Humanism, will also be the focus for study in thematic units.

Pupils are to study in depth the religious traditions of the following groups:		
4-5s	Children will encounter Christianity and other faiths, as part of their growing sense of self, their own community and their place in it.	Consideration of other religions and non-religious worldviews can occur at any key stage, as appropriate to the school context.
Reception		
5-7s (KS1)		
7-11s (KS2)	Christians, Jews, Muslims	
	Christians, Muslims, Hindus, Jews	

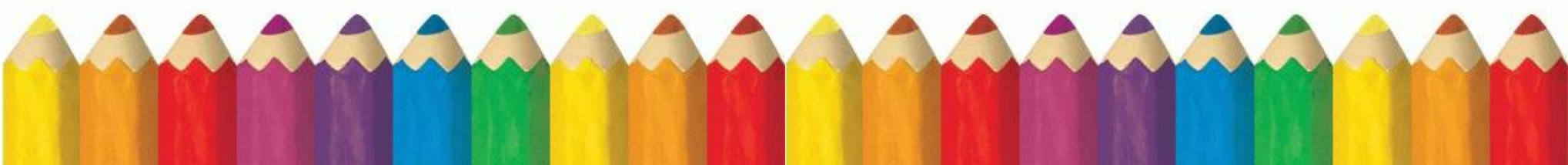
Important notes:

- The range of religious groups in the UK. Groups such as; Quakers, the Baha’i faith, Jehovah’s Witnesses, The Church of Jesus Christ of Latter-day Saints, or the Jains are not excluded from study. Schools are always advised to make space for the worldviews of the local community, which is why the table above expresses minimum requirements.
- Notice the language. ‘Christians’ rather than ‘Christianity’, ‘Hindus’ rather than ‘Hinduism’. This is to reflect the fact that RE starts with encounters with living faiths rather than the history and belief structures of traditions. This also recognises the diversity within and between religions and other traditions.
- Depth rather than breadth. Learning from four religions across a key stage is demanding: the syllabus does not recommend tackling six religions in a key stage. Depth is more important than overstretched breadth.
- Skills. These follow a pattern of; KS1 (Exploring), KS2 (Connecting) and later at KS3 (Applying and interpreting).

Impact

The impact of the curriculum, to ensure appropriate progress is being achieved, will be reviewed through:

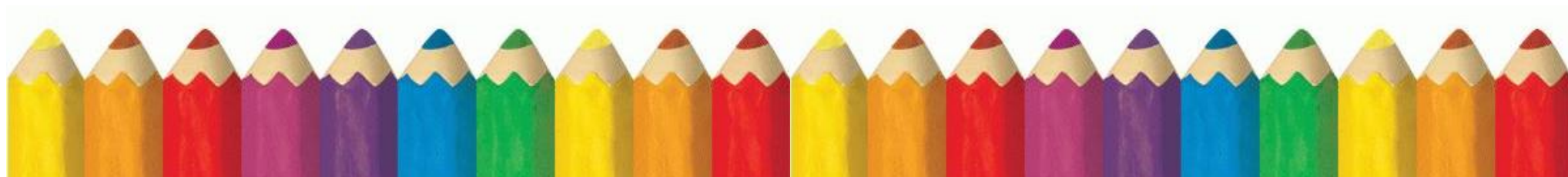
- Pupil conferencing
- Teaching & Learning
- Assessment processes in line with the expectations
- Work sampling

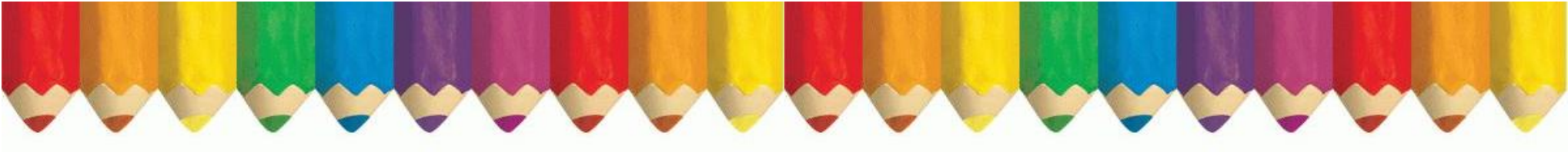




Religious Education– Characteristics of Good Learners

- They will have knowledge of religions and beliefs in local, national and global contexts, to discover explore and consider different answers to these questions.
- They will be able to answer challenging questions about meaning and purpose in life, beliefs about God, ultimate reality, issues of right and wrong and what it means to be human.
- They will learn to weigh up the value of wisdom from different sources, to develop and express their insights in response and to agree or disagree respectfully.
- They will be equipped with systematic knowledge and understanding of a range of religious beliefs, enabling them to develop their ideas, values and identities.
- They will develop an aptitude for dialogue so that they can participate positively in our society, with its diverse religions and beliefs.
- They should gain and use the skills needed to understand, interpret and evaluate texts, sources of wisdom and authority and other evidence. They should learn to articulate clearly and coherently their personal beliefs, ideas, values and experiences while respecting the right of others to differ.





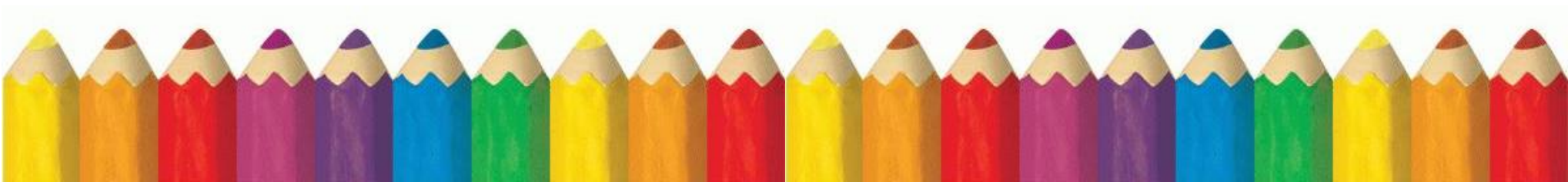
Religious Education – Early Years

At Watcombe, we follow the Devon and Torbay Locally Agreed Syllabus for RE however the 2021 EYFS framework also has Early Learning Goals (ELG) that link to the teaching and learning of RE. The ELG should be used to support teachers to make a holistic, best-fit judgement about a child’s development, and their readiness for year 1. It is important to note that the ELG are not the Watcombe curriculum and do not limit teachers in their provision. This document demonstrates the ELG and the progression to achieve these with RE. The aim of this document is to help subject leaders to understand how the skills taught across the EYFS feed into the Devon and Torbay Locally Agreed Syllabus and the progression of skills children will need to support their development.

Bellow you can find the most relevant ELG to RE and the recommendations on the pathways of children’s development in ages and stages from the 2021 Development matters.

The most relevant ELG for RE are taken from the area of Understanding the World.

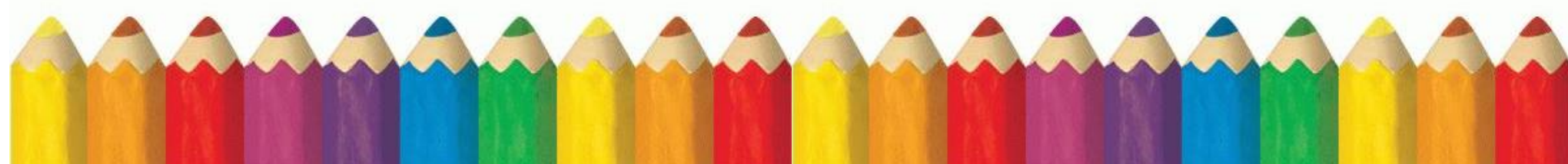
People, Culture and Communities ELG		Know some similarities and differences between different religious and cultural communities in this country, drawing on their experiences and what has been read in class;
Development Matters: Development Pathway		
Birth to Three	Make connections between the features of their family and other families. Notice differences between people.	
Three to Four Year olds	Begin to make sense of their own life-story and family's history. Show interest in different occupations. Continue developing positive attitudes about the differences between people.	
Children in reception.	Talk about members of their immediate family and community. Name and describe people who are familiar to them. Understand that some places are special to members of their community. Recognise that people have different beliefs and celebrate special times in different ways.	





Religious Education– Key Learning in KS1 & KS2

		Years 1/2	Years 3/4	Years 5/6
Element 1 Making sense of beliefs	Identifying and making sense of religious and non-religious beliefs and concepts; understanding what these beliefs mean within their traditions; recognising how and why sources of authority (such as texts) are used, expressed and interpreted in different ways, and developing skills of interpretation.	Pupils can.. <ul style="list-style-type: none"> • identify core beliefs and concepts studied and give a simple description of what they mean. • give examples of how stories show what people believe (e.g. the meaning behind a festival). • give clear, simple accounts of what stories and other texts mean to believers. 	Pupils can.. <ul style="list-style-type: none"> • identify and describe the core beliefs and concepts studied. • make clear links between texts/sources of authority and the core concepts studied. • offer informed suggestions about what texts/sources of authority can mean and give examples of what these sources mean to believers. 	Pupils can.. <ul style="list-style-type: none"> • identify and explain the core beliefs and concepts studied, using examples from texts/sources of authority in religions. • describe examples of ways in which people use texts/sources of authority to make sense of core beliefs and concepts. • give meanings for texts/sources of authority studied, comparing these ideas with some ways in which believers interpret texts/sources of authority.
Element 2 Understanding the impact	Examining how and why people put their beliefs into practice in diverse ways, within their everyday lives, within their communities and in the wider world.	<ul style="list-style-type: none"> • give examples of how people use stories, texts and teachings to guide their beliefs and actions. • give examples of ways in which believers put their beliefs into practice. 	<ul style="list-style-type: none"> • make simple links between stories, teachings and concepts studied and how people live, individually and in communities. • describe how people show their beliefs in how they worship and in the way they live. • identify some differences in how people put their beliefs into practice. 	<ul style="list-style-type: none"> • make simple links between stories, teachings and concepts studied and how people live, individually and in communities. • describe how people show their beliefs in how they worship and in the way they live. • identify some differences in how people put their beliefs into practice.
Element 3 Making connections	Evaluating, reflecting on and connecting the beliefs and practices studied; allowing pupils to challenge ideas studied, and the ideas studied to challenge pupils' thinking; discerning possible connections between these and pupils' own lives and ways of	<ul style="list-style-type: none"> • think, talk and ask questions about whether the ideas they have been studying, have something to say to them. • give a good reason for the views they have and the connections they make. 	<ul style="list-style-type: none"> • make links between some of the beliefs and practices studied and life in the world today, expressing some ideas of their own clearly. • raise important questions and suggest answers about how far the beliefs and practices studied might make a difference to how pupils think and live. 	<ul style="list-style-type: none"> • make connections between the beliefs and practices studied, evaluating and explaining their importance to different people (e.g. believers and atheists). • reflect on and articulate lessons people might gain from the beliefs/practices studied, including their own responses, recognising that others may think differently.





	understanding the world.		<ul style="list-style-type: none">• give good reasons for the views they have and the connections they make.	<ul style="list-style-type: none">• consider and weigh up how ideas studied in this unit relate to their own experiences and experiences of the world today, developing insights of their own and giving good reasons for the views they have and the connections they make.
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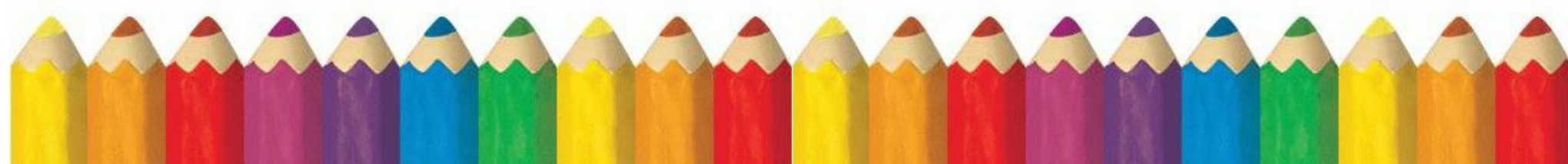




Watcombe Primary School



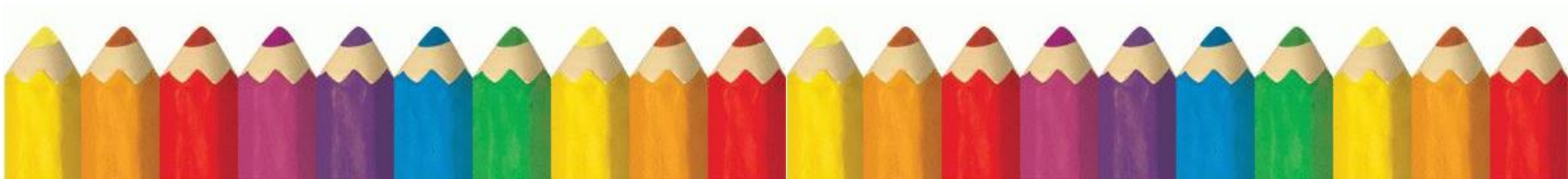
Science

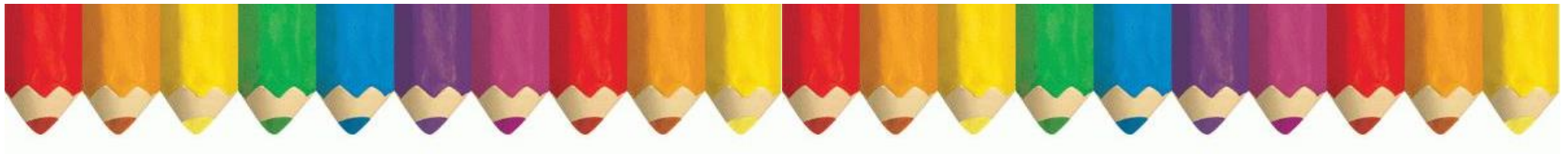




Science – Intent, Implementation, Impact Statement

Intent
<p>In Science, our intent is for the curriculum to ensure that learners are equipped with the necessary scientific knowledge, skills and vocabulary to explore and discover the world around them, confidently, so that they have a deeper understanding of the world we live in. The curriculum will enable our learners to value the importance of scientific discoveries and research and promote a curiosity of science.</p> <p>We want our learners to have access to exciting, practical and hands-on experiences which will encourage curiosity and questioning. Our aim is that these stimulating and challenging experiences help children secure and extend their scientific knowledge and vocabulary.</p> <p>The intent is to develop learners’ skills, knowledge and understanding of Science in line with the primary curriculum in order to create a platform for KS3.</p>
Implementation
<p>The curriculum is delivered through a range of investigative and problem solving activities, both inside and outside of the classroom. This is achieved through a clear programme of study which systematically builds upon prior knowledge.</p> <p>Learners are given opportunities to investigate using scientific methods and scientific concepts are taught by linking them to the real world, to make them more relevant for the learners.</p> <p>This will develop a variety of different knowledge and skills, including, problem solving, investigations and experiments. We believe that these opportunities will ensure that our children are confident, life-long learners who will explore the world around them.</p>
Impact
<p>In Science the curriculum will make a profound, positive impact to the outcomes of every child.</p> <p>The impact of the curriculum, to ensure appropriate progress is being achieved, will be reviewed through:</p> <ul style="list-style-type: none">• Pupil conferencing• Teaching & Learning• Assessment processes in line with the expectations• Work sampling





Science – Characteristics of Good Learners

- The ability to think independently and raise questions about working scientifically and the knowledge and skills that it brings.
- Confidence and competence in the full range of practical skills, taking the initiative in, for example, planning and carrying out scientific investigations.
- Excellent scientific knowledge and understanding which is demonstrated in written and verbal explanations, solving challenging problems and reporting scientific findings.
- High levels of originality, imagination or innovation in the application of skills.
- The ability to undertake practical work in a variety of contexts, including fieldwork.
- A passion for science and its application in past, present and future technologies.





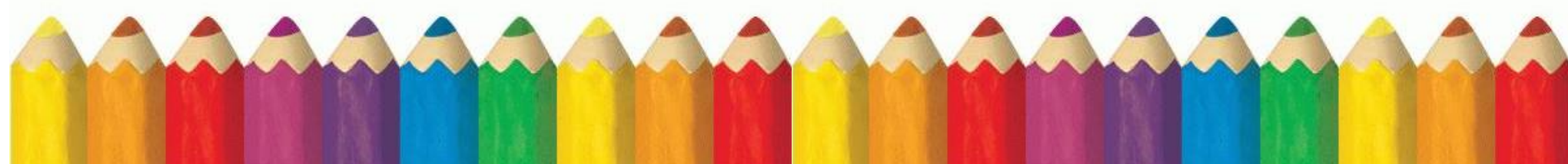
Science – Early Years

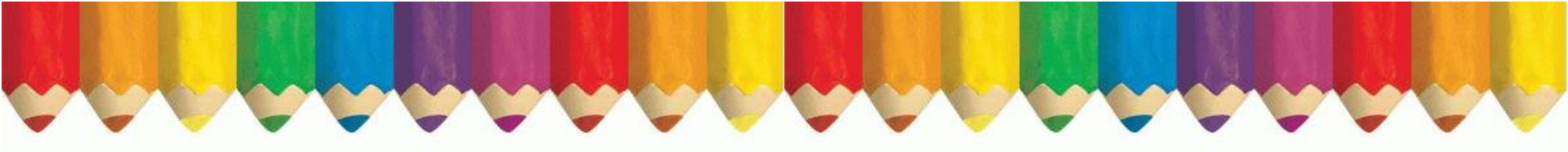
The 2021 EYFS framework is structured very differently to the National Curriculum as it is organised across seven areas of learning rather than specific subject areas. The aim of this document is to help subject leaders to understand how the skills taught across the EYFS feed into National Curriculum subjects. The Early Learning Goals (ELG) should be used to support teachers to make a holistic, best-fit judgement about a child's development, and their readiness for year 1. It is important to note that the ELG are not the Watcombe curriculum and do not limit teachers in their provision.

This document demonstrates which early years outcomes are prerequisite skills for art within the National Curriculum. Bellow you can find the most relevant ELG to science and the recommendations on the pathways of children's development in ages and stages from the 2021 Development matters.

The most relevant ELG for science are taken from the areas of Understanding the World, Expressive Arts and Design and Personal Social and Emotional Development.

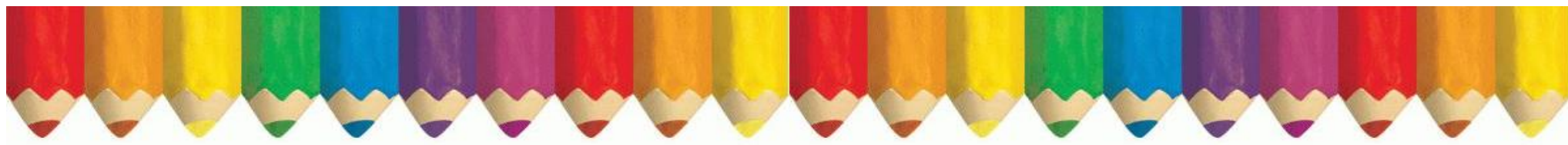
The Natural World		- Explore the natural world around them, making observations and drawing pictures of animals and plants; - Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class; - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.
Creating with Materials		- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form, and function; - Share their creations, explaining the process they have used; - Make use of props and materials when role playing characters in narratives and stories.
Managing Self		Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.
Development Matters: Development Pathway		
Birth to Three	Repeat actions that have an effect. Explore materials with different properties. Explore natural materials, indoors and outside. Explore and respond to different natural phenomena in their setting and on trips. Explore different materials, using all their senses to investigate them. Manipulate and play with different materials. Use their imagination as they consider what they can do with different materials. Learn to use the toilet with help, and then independently.	
Three to Four Year olds	Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about what they see, using a wide vocabulary. Explore how things work. Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant and an animal. Begin to understand the need to respect and care for the natural environment and all living things. Explore and talk about different forces they can feel. Talk about the differences between materials and changes they notice. Explore different materials freely, to develop their ideas about how to use them and what to make. Develop their own ideas and then decide which materials to use to express them. Join different materials and explore different textures.	





Children in reception.	<p>Explore the natural world around them.</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Recognise some environments that are different from the one in which they live.</p> <p>Understand the effect of changing seasons on the natural world around them.</p> <p>Be increasingly independent in meeting their own care needs, e.g., brushing teeth, using the toilet, washing and drying their hands thoroughly.</p> <p>Make healthy choices about food, drink, activity and tooth brushing.</p>
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Science – Key Learning in KS1 & KS2

Science should be taught through an investigative / enquiry approach. Present the learning through questions.

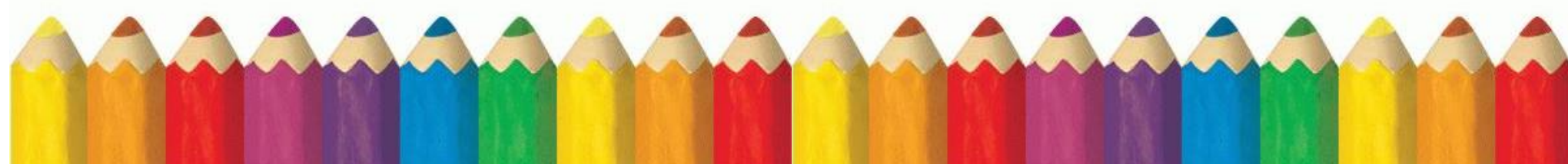


		Years 1/2	Years 3/4	Years 5/6
	To work scientifically	<ul style="list-style-type: none"> • Ask simple questions. • Observe closely, using simple equipment. • Perform simple tests. • Identify and classify. • Know how to use observations and ideas to suggest answers to questions. • Gather and record data to help in answering questions. 	<ul style="list-style-type: none"> • Ask relevant questions. • Set up simple practical enquiries and comparative and fair tests. • Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers • Gather, record, classify and present data in a variety of ways to help in answering questions. • Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables. • Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. • Know how to use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests. • Identify differences, similarities or changes related to simple, scientific ideas and processes. • Use straightforward, scientific evidence to answer questions or to support their findings. 	<ul style="list-style-type: none"> • Plan enquiries, including recognising and controlling variables where necessary. • Take measurements, using a range of scientific equipment, with increasing accuracy and precision. Taking repeat readings where appropriate. • Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs, and models. • Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations • Present findings in written form, displays and other presentations. • Know how to use test results to make predictions to set up further comparative and fair tests. • Know how to use simple models to describe scientific ideas, identifying scientific evidence that has been used to support or refute ideas or arguments.
	Plants	<ul style="list-style-type: none"> • Identify and name a variety of common plants, including garden plants, wild plants and trees and those 	<ul style="list-style-type: none"> • Identify and describe the functions of different parts of flowering plants: roots, stem, leaves and flowers. 	



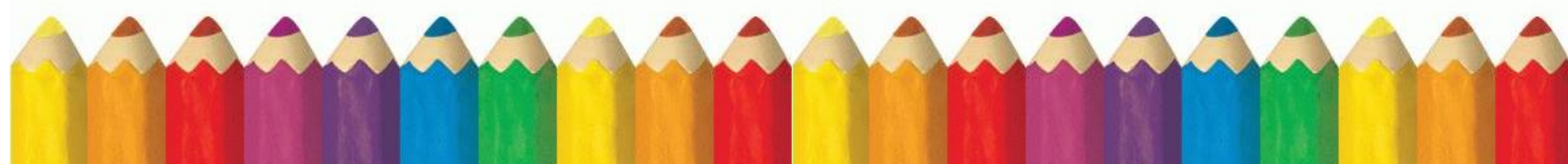


		<p>classified as deciduous and evergreen.</p> <ul style="list-style-type: none"> • Identify and describe the basic structure of a variety of common flowering plants, including roots, stem/trunk, leaves and flowers. • Observe and describe how seeds and bulbs grow into mature plants. • Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. 	<ul style="list-style-type: none"> • Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. • Investigate the way in which water is transported within plants. • Explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 	
	Animals and humans	<ul style="list-style-type: none"> • Identify and name a variety of common animals that are birds, fish, amphibians, reptiles, mammals and invertebrates. • Identify and name a variety of common animals that are carnivores, herbivores and omnivores. • Describe and compare the structure of a variety of common animals (birds, fish, amphibians, reptiles, mammals and invertebrates, including pets). • Identify name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. • Notice that animals, including humans, have offspring which grow into adults. • Investigate and describe the basic needs of animals, including humans, for survival (water, food and air). • Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene. 	<ul style="list-style-type: none"> • Identify that animals, including humans, need the right types and amounts of nutrition, that they cannot make their own food and they get nutrition from what they eat. • Identify that humans and some animals have skeletons and muscles for support, protection and movement. • Describe the simple functions of the basic parts of the digestive system in humans. • Identify the different types of teeth in humans and their simple functions. 	<ul style="list-style-type: none"> • Identify and name the main parts of the human circulatory system, and explain the functions of the heart, blood vessels and blood (including the pulse and clotting). • Describe the ways in which nutrients and water are transported within animals, including humans • Describe the changes as humans develop from birth to old age. • Recognise the impact of diet, exercise, drugs and lifestyle on the way human bodies function





	Living things and their habitat	<ul style="list-style-type: none"> • Explore and compare the differences between things that are living, that are dead and that have never been alive. • Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants and how they depend on each other. • Identify and name a variety of plants and animals in their habitats, including micro-habitats • Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. 	<ul style="list-style-type: none"> • Recognise that environments are constantly changing and that this can sometimes pose dangers to specific habitats. • Recognise that living things can be grouped in a variety of ways • Explore and know how to use classification keys to help group, identify and name a variety of living things in their local and wider environment 	<ul style="list-style-type: none"> • Give reasons for classifying plants and animals based on specific characteristics. • Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird • Explain the classification of living things into broad groups according to common, observable characteristics and based on similarities and differences, including plants, animals and micro-organisms. • Describe the life process of reproduction in some plants and animals.
	Evolution and inheritance		<ul style="list-style-type: none"> • Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. • Identify how animals and plants are suited to and adapt to their environment in different ways. 	<ul style="list-style-type: none"> • Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. • Describe how adaptation leads to evolution. • Recognise how and why the human skeleton has changed over time, since we separated from other primates.
	Everyday materials States of matter Properties and changes	<ul style="list-style-type: none"> • Distinguish between an object and the material from which it is made. • Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock. • Describe the simple physical properties of a variety of everyday materials. • Compare and group together a variety of 	<ul style="list-style-type: none"> • Compare and group materials together, according to whether they are solids, liquids or gases. • Observe that some materials change state when they are heated or cooled, and measure the temperature at which this happens in degrees Celsius (°C) • Identify the part played by evaporation and condensation in the water cycle and associate the rate 	<ul style="list-style-type: none"> • Compare and group together everyday materials based on evidence from comparative and fair tests, including their hardness, solubility, conductivity (electrical and thermal), and response to magnets. • Know and understand how some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution. • Know how to use knowledge of solids, liquids



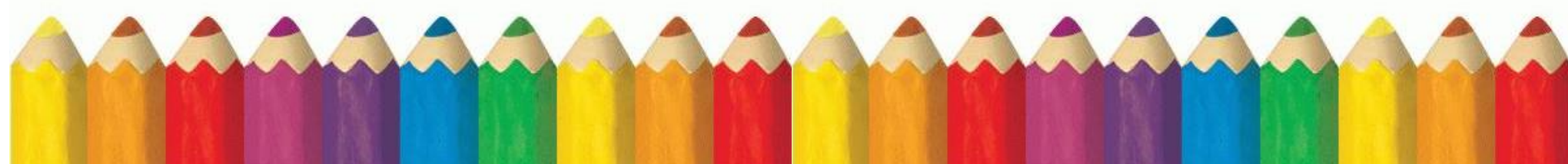


	Rocks	<p>everyday materials on the basis of their simple physical properties.</p> <ul style="list-style-type: none"> • Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. • Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick/rock, and paper/cardboard for particular uses. • Compare and group together different kinds of rocks on the basis of their simple, physical properties. • Describe in simple terms how fossils are formed when things that have lived are trapped within rock • Recognise that soils are made from rocks and organic matter. 	<p>of evaporation with temperature.</p>	<p>and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.</p> <ul style="list-style-type: none"> • Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. • Demonstrate that dissolving, mixing and changes of state are reversible changes. • Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning, oxidation and the action of acid on bicarbonate of soda.
	Forces and magnets		<ul style="list-style-type: none"> • Describe magnets as having two poles. • Observe how magnets attract or repel each other and attract some materials and not others. • Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet and identify some magnetic materials. • Predict whether two magnets will attract or repel each other, depending on which poles are facing. • Notice that some forces need contact between two 	<ul style="list-style-type: none"> • Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. • Identify the effect of drag forces, such as air resistance, water resistance and friction that act between moving surfaces. • Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.



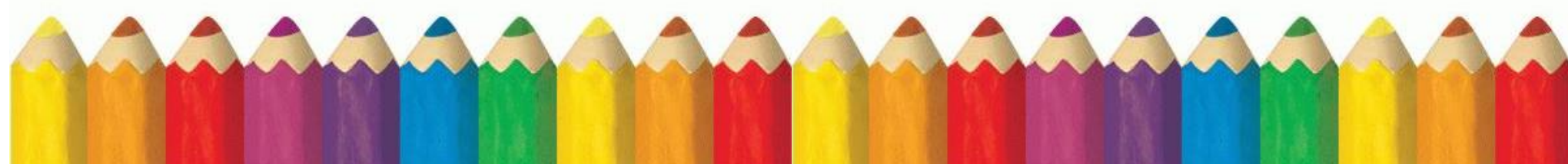


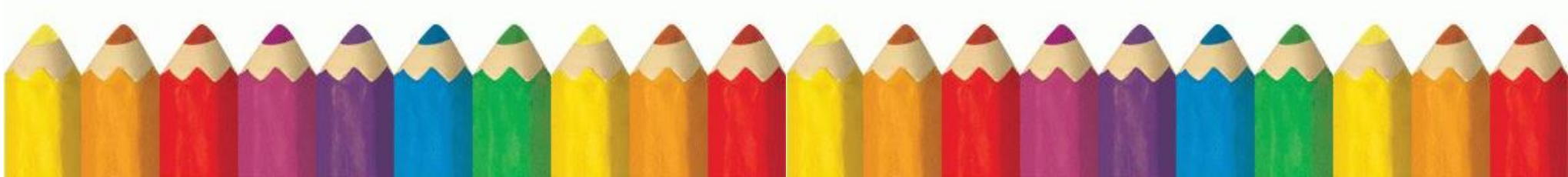
			objects and magnetic forces act at a distance.	
	Light		<ul style="list-style-type: none"> • Recognise that they need light in order to see things and that dark is the absence of light • Observe the apparent movement of the Sun during the day. • Notice that light is reflected from surfaces • Recognise that light from the sun can be dangerous and that there are ways to protect their eyes • Recognise that shadows are formed when the light from a light source is blocked by a solid object • Find patterns in the way that the size of shadows change. 	<ul style="list-style-type: none"> • Recognise that light appears to travel in straight lines • Know how to use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye • Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes • Know how to use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.
	Sound		<ul style="list-style-type: none"> • Identify how sounds are made, associating some of them with something vibrating • Recognise that vibrations from sounds travel through a medium to the ear • Find patterns between the pitch of a sound and features of the object that produced it • Find patterns between the volume of a sound and the strength of the vibrations that produced it • Recognise that sounds get fainter as the distance from the sound source increases. 	





	Electricity		<ul style="list-style-type: none"> • Identify common appliances that run on electricity • Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers • Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery • Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit • Recognise some common conductors and insulators, and associate metals with being good conductors. 	<ul style="list-style-type: none"> • Know how to use recognised symbols when representing a simple circuit in a diagram. • Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. • Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.
	<p>Seasonal changes</p> <p>Earth and space</p>	<ul style="list-style-type: none"> • Observe changes across the four seasons. • Observe and describe weather associated with the seasons and how day length varies. 		<ul style="list-style-type: none"> • Describe the Sun, Earth and Moon as approximately spherical bodies. • Know how to use the idea of the Earth's rotation to explain day and night. • Describe the movement of the Earth relative to the Sun in the solar system. • Describe the movement of the Moon relative to the Earth. • Observe the apparent movement of the Sun during the day.







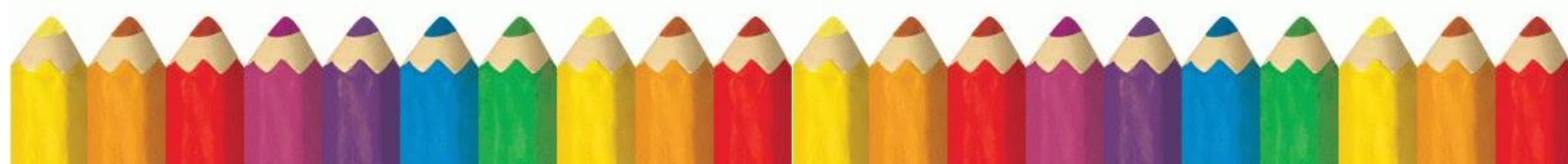
Science – Support & Challenge

Support - Generic science skills

P4	P5	P6	P7	P8	Next steps...
<ul style="list-style-type: none"> • Explore objects and materials provided, changing some materials by physical means and observing the outcomes. • Communicate awareness of changes in light, sound or movement. • Imitate actions involving main body parts. • Make sounds using their own bodies, and imitate or copy sounds. • Cause intentional movement by a pushing or pulling action. 	<ul style="list-style-type: none"> • Take part in activities focused on the anticipation of and enquiry into specific environments. • Match objects and materials with single features or properties. • Indicate the before and after of material changes. • Try out a range of equipment in familiar and relevant situations. 	<ul style="list-style-type: none"> • Recognise distinctive features of objects. • Begin to make generalisations, connections and predictions from regular experience. • Sort materials according to a single criterion when the contrast is obvious. • Observe closely changes that occur. • Identify some appliances that use electricity. • Show knowledge of some sources of sound and light. 	<ul style="list-style-type: none"> • Understand the scientific use of some simple vocabulary, such as before, after, bumpy, grow, eat and move, and communicate related ideas and observations using simple phrases. • Demonstrate simple properties of light, sound and movement. • Make simple records of findings. • Begin to make suggestions for planning and evaluating work. 	<ul style="list-style-type: none"> • Observe patterns or regular changes in features of objects, living things and events. • Make some contribution to planning and evaluation and to recording findings. • Identify a range of common materials and know about some of their properties. • Sort materials using simple criteria and communicate observations of materials in terms of these properties. • Make observations of changes of light, sound or movement that result from actions and describe the changes when questioned. 	<p>Look at the Early Learning Goals linked to Science</p>

Years 7, 8 and 9 - Working scientifically

Experimental skills and investigations	Handling information and problem solving	Scientific attitudes	Measurement
<ul style="list-style-type: none"> • Ask questions and develop lines of enquiry based on observations. • Make predictions using scientific knowledge and understanding. • Plan and design investigations and experiments to make observations and test predictions. • Identify independent, dependent and control variables and other factors to be taken into account when collecting evidence and data. 	<ul style="list-style-type: none"> • Present observations and data using appropriate methods, including tables and graphs. • Interpret observations and data. • Present reasoned explanations. • Evaluate data, showing awareness of potential errors. 	<ul style="list-style-type: none"> • Work objectively with concern for validity. • Understand the need for collaborative research and peer review. • Evaluate risks. 	<ul style="list-style-type: none"> • Understand and use SI units and IUPAC (International Union of Pure and Applied Chemistry) chemical nomenclature. • Use and derive simple equations. • Undertake data analysis.

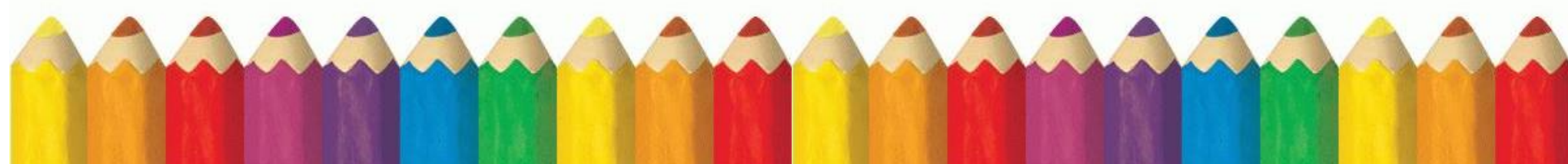




<ul style="list-style-type: none"> • Select appropriate techniques, apparatus, and materials during fieldwork and laboratory work, working safely. • Make and record observations and measurements using a range of methods for different investigations. • Evaluate the reliability of methods and suggest possible improvements. 	<ul style="list-style-type: none"> • Identify questions arising from results of investigations. 		
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Years 7, 8 and 9 - Biology

<p>Structure and function of living organisms</p> <p>Cells and organisation</p> <ul style="list-style-type: none"> • The purpose and structure of cells. • The function of parts of a cell. • Movement of materials in and between cells. • The organisation of multicellular organisms. <p>The skeletal and muscular systems</p> <ul style="list-style-type: none"> • The structure and functions of the human skeleton. • The interaction between skeleton and muscles. • The function and actions of major muscle groups. <p>Human nutrition and digestion</p> <ul style="list-style-type: none"> • Content in a healthy human diet. • Food tests for starch, simple sugars, protein and fat. 	<p>Energy flow and material cycles</p> <p>Photosynthesis</p> <ul style="list-style-type: none"> • The dependence of almost all life on Earth on the transfer of solar energy. • The relationship between the structures and functions of leaves. • The word equation for photosynthesis. • Mineral nutrition in plants. • Chemosynthesis in bacteria and other organisms. <p>Cellular respiration</p> <ul style="list-style-type: none"> • Aerobic and anaerobic respiration in living organisms. • The word equation for aerobic respiration. • The process of anaerobic respiration in humans and micro-organisms, including the word equation for anaerobic respiration. • The differences between aerobic and anaerobic respiration. 	<p>Interactions and interdependencies</p> <p>Relationships in an ecosystem</p> <ul style="list-style-type: none"> • The interdependence of organisms. • How organisms affect, and are affected by, their environment. • The role of variation in enabling closely related living things to survive in the same ecosystem. 	<p>Genetics and evolution</p> <p>Reproduction</p> <ul style="list-style-type: none"> • Reproduction organs and processes in humans. • Reproduction in plants. • Insect pollination in human food security. <p>Inheritance, chromosomes, DNA and genes</p> <ul style="list-style-type: none"> • Heredity. • The development of the DNA model. • Variation between individuals of different species. • Variation between individuals within a species. • Variation leading to competition which can drive adaptation. • Changes in the environment that leave some species less well adapted to compete successfully and reproduce. • The use of gene banks to preserve hereditary material.
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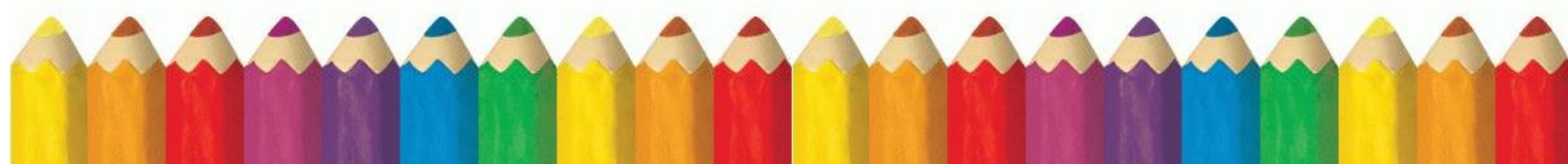




<ul style="list-style-type: none"> • Calculations of energy requirements in a healthy daily diet. • The consequences of imbalances in the diet. • The tissues and organs of the digestive system. • The importance of bacteria in the digestive system. <p>The breathing (gas exchange) system</p> <ul style="list-style-type: none"> • The structure and functions of the gas exchange system in humans. • The mechanism of breathing. • The impact of exercise, asthma and smoking on the breathing system. <p>Health</p> <ul style="list-style-type: none"> • The effects of drugs (including as medicines as well as substances misuse) on behaviours. 			
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Years 7, 8 and 9 - Chemistry

Pure and impure substances	The particulate nature of matter	Chemical reactions	Energetics	The Periodic Table	Materials	Earth science
<ul style="list-style-type: none"> • Mixtures, including dissolving. • Techniques for separating mixtures: chromatography, filtering, evaporation and distillation. • The identification of pure substances. 	<ul style="list-style-type: none"> • The properties of the different states of matter. • Changes of state in terms of particle kinetics and energy changes. • The nature of atoms, 	<ul style="list-style-type: none"> • Chemical reactions as the rearrangement of atoms. • Representing chemical reactions using formulae and using equations. • Combustion. 	<ul style="list-style-type: none"> • Chemical reactions. • Acids, alkalis and neutralisation. • Defining acids, bases and alkalis. • The pH scale for measuring acidity/alkalinity. • Reactions of acids with bases and metals. 	<ul style="list-style-type: none"> • The Periodic Table: periods and groups; metals and non-metals. • How patterns in reactions can be explained and predicted with reference to 	<ul style="list-style-type: none"> • The order of metals and carbon in the reactivity series. • The use of carbon in obtaining metals from metal oxides. • Ceramics, polymers and composites. 	<ul style="list-style-type: none"> • The composition of the Earth and the atmosphere. • Changes to the Earth's atmosphere since its formation. • The production of carbon dioxide by human activity and the impact on climate and





	<p>elements and compounds.</p> <ul style="list-style-type: none"> • Conservation of mass in chemical and physical change. 			<p>the Periodic Table.</p> <ul style="list-style-type: none"> • The varying physical and chemical properties of different elements. • The chemical properties of metals and non-metals. 		<p>the efficacy of recycling.</p>
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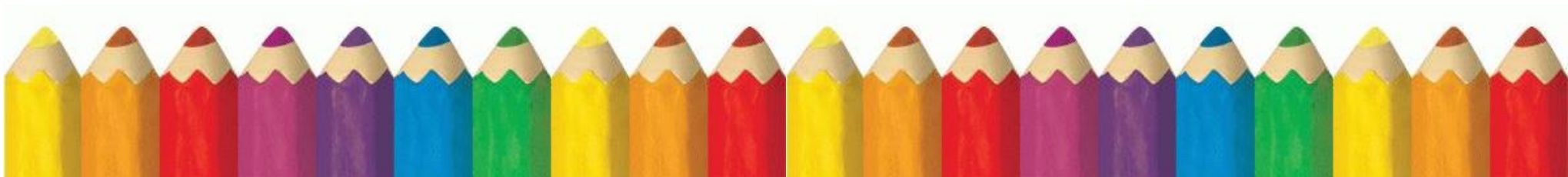
Challenge - Years 7, 8 and 9 - Physics

<p>Energy</p> <p>Changes and transfers</p> <ul style="list-style-type: none"> • Processes that cause change, with forces, with matter and with electricity. • Calculations comparing ratings of appliances in kilowatts (kW) and amounts of energy from different foods. • Fuel, fuel sources and heating. <p>Auditing change</p> <ul style="list-style-type: none"> • Audit calculation using measures of change in energy. • Rates of change measured in kW. 	<p>Motion and forces</p> <p>Describing motion</p> <ul style="list-style-type: none"> • Speed and the relationship between average speed, distance and time (speed = distance ÷ time). • The representation of a journey on a distance-time graph. • Relative motion. <p>Forces</p> <ul style="list-style-type: none"> • Forces arising from the interaction between two objects. • Moments. • Measurement of forces in Newtons. • Hooke's Law. • Gravity forces acting at a distance on Earth and in space. <p>Pressure forces</p> <ul style="list-style-type: none"> • Atmospheric pressure. 	<p>Waves</p> <p>Observed waves</p> <ul style="list-style-type: none"> • Waves on water. <p>Sounds waves</p> <ul style="list-style-type: none"> • Frequencies of sound waves. • The speed of sound in air. • Sound produced by vibrations of objects. • Auditory range. <p>Energy and waves</p> <ul style="list-style-type: none"> • Sound waves carrying energy. <p>Light waves</p> <ul style="list-style-type: none"> • The similarities and differences between light and waves. • Light waves travelling through a 	<p>Electricity and electromagnetism</p> <p>Current electricity</p> <ul style="list-style-type: none"> • Electric current. • Current as flow of charge. • Potential difference and resistance. • Differences in resistance between conducting and insulating components. <p>Static electricity</p> <ul style="list-style-type: none"> • Separation of positive or negative charges when objects are rubbed together. • The idea of electric field forces acting across the space between objects not in contact. <p>Magnetism</p> <ul style="list-style-type: none"> • Magnetic poles, attraction and repulsion. • Magnetic fields. • The magnetic effect of a current, electromagnets, D.C. motors. 	<p>Matter</p> <p>Physical changes</p> <ul style="list-style-type: none"> • Conservation of material and of mass. • Similarities and differences between solids, liquids and gases. • Brownian motion in gases. • Diffusion in liquids and gases. • The difference between chemical and physical changes. <p>Particle model</p> <ul style="list-style-type: none"> • The differences in arrangements, in motion and in closeness of particles, explaining changes of state, shape and density. • Atoms and molecules as particles. <p>Energy in matter</p>
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	<ul style="list-style-type: none">• Pressure in liquids, including upthrust effects, floating and sinking.• Pressure measured by ratio of force over area - acting in all directions. <p>Balanced forces</p> <ul style="list-style-type: none">• Opposing forces and equilibrium. <p>Forces and motion</p> <ul style="list-style-type: none">• The role of forces in causing motion or changes in motion.	<p>vacuum and the speed of light.</p> <ul style="list-style-type: none">• The transmission of light through materials.• The refraction of light and the human eye.• Light transferring energy.• Colour and the different frequencies of light.		<ul style="list-style-type: none">• Changes of temperature in motion and spacing of particles.• Internal energy stored in materials
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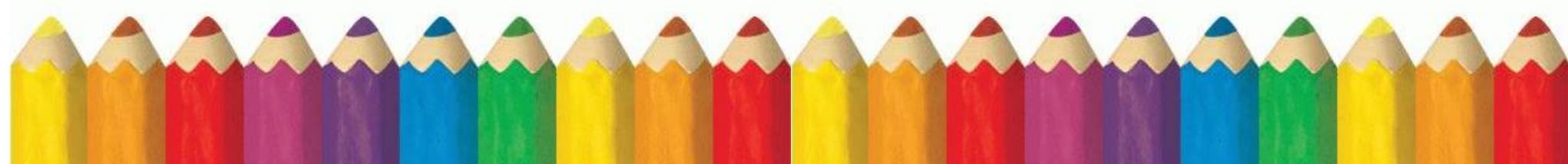


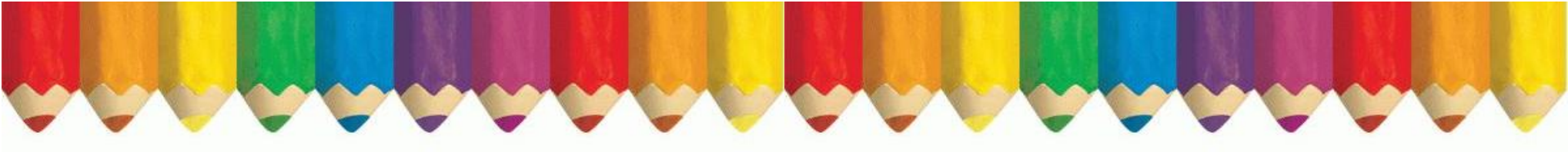


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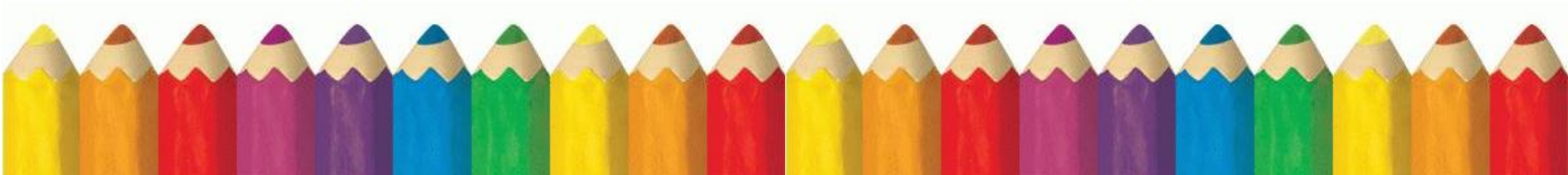
Technology





Technology – Intent, Implementation, Impact Statement

Intent
Design and Technology is a highly motivating, exciting and 'hands on', practical subject sparking enthusiasm in pupils. It enables children to use their creativity and imaginative skills by designing and making products, solving real and relevant problems within a variety of contexts whilst considering their own and others' needs, wants and values. Whilst using their Design and Technology subject knowledge children are also required to draw on learning in mathematics, science, engineering, computing and art.
Implementation
Pupils learn in blocks of work throughout the year and focus on a curriculum which enables them to take risks whilst working towards becoming resourceful, innovative and capable citizens. Through evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High quality design and technology education makes an important contribution to the future.
Impact
Impact will be evident: <ul style="list-style-type: none">Through pupils developing the creative, technical and practical expertise needed to perform everyday tasks confidently and successfully in an increasingly technological world.Through building and applying a wide range of knowledge, understanding and skills as pupils will be able to design and make high quality products.Through the development of the pupil's critical eye by evaluating and testing ideas and products and the work of others.Through the pupil's understanding of, and being able to apply, the principles of nutrition and learn how to cook to an age appropriate level.

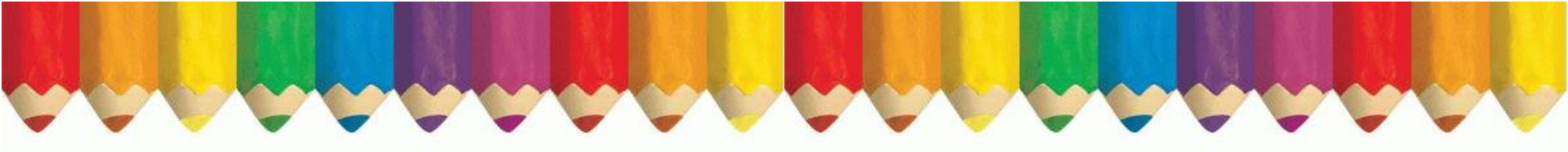




Technology – Characteristics of Good Learners

- Significant levels of originality and the willingness to take creative risks to produce innovative ideas and prototypes.
- An excellent attitude to learning and independent working.
- The ability to use time efficiently and work constructively and productively with others.
- The ability to carry out thorough research, show initiative and ask questions to develop an exceptionally detailed knowledge of users' needs.
- The ability to act as responsible designers and makers, working ethically, using finite materials carefully and working safely.
- A thorough knowledge of which tools, equipment and materials to use to make their products.
- The ability to apply mathematical knowledge.
- The ability to manage risks exceptionally well to manufacture products safely and hygienically.
- A passion for the subject and knowledge of, up-to-date technological innovations in materials, products and systems.





Technology – Early Years

The 2021 EYFS framework is structured very differently to the National Curriculum as it is organised across seven areas of learning rather than specific subject areas. The aim of this document is to help subject leaders to understand how the skills taught across the EYFS feed into National Curriculum subjects. The Early Learning Goals (ELG) should be used to support teachers to make a holistic, best-fit judgement about a child’s development, and their readiness for year 1. It is important to note that the ELG are not the Watcombe curriculum and do not limit teachers in their provision.

This document demonstrates which early years outcomes are prerequisite skills for computing within the National Curriculum. Bellow you can find the most relevant ELG to computing and the recommendations on the pathways of children’s development in ages and stages from the 2021 Development matters.





The most relevant ELG for Design and Technology are taken from the areas of Physical development and Expressive Arts and Design

Fine Motor Skills		- Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases; - Use a range of small tools, including scissors, paint brushes and cutlery; - Begin to show accuracy and care when drawing.
Creating with Materials		- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form, and function; - Share their creations, explaining the process they have used; - Make use of props and materials when role playing characters in narratives and stories.
Development Matters: Development Pathway		
Birth to Three	Reach out for objects as co-ordination develops. Pass things from one hand to the other. Let go of things and hand them to another person, or drop them. Build independently with a range of appropriate resources. Explore different materials, using all their senses to investigate them. Manipulate and play with different materials. Use their imagination as they consider what they can do with different materials. Make simple models which express their ideas.	
Three to Four Year olds	Choose the right resources to carry out their own plan. For example, choosing a spade to enlarge a small hole they dug with a trowel. Use one-handed tools and equipment, for example, making snips in paper with scissors. Use a comfortable grip with good control when holding pens and pencils. Show a preference for a dominant hand. Make imaginative and complex ‘small worlds’ with blocks and construction kits, such as a city with different buildings and a park. Explore different materials freely, to develop their ideas about how to use them and what to make. Develop their own ideas and then decide which materials to use to express them. Join different materials and explore different textures.	
Children in reception.	Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons. Return to and build on their previous learning, refining ideas and developing their ability to represent them. Create collaboratively, sharing ideas, resources and skills.	

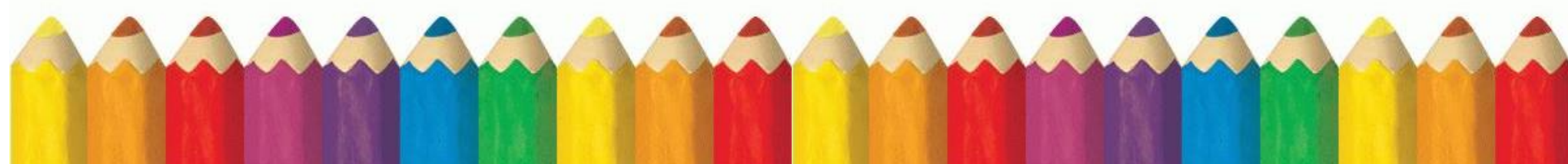




Technology – Key Learning in KS1 & KS2

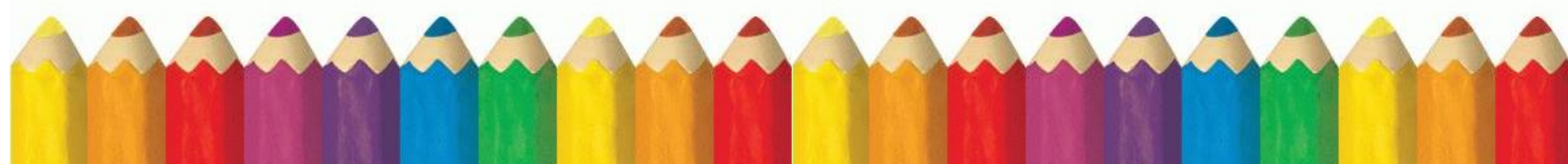
 INVESTIGATE products Discuss / compare / preferences / deconstruct	 DESIGN Own product in relation to criteria	DEVELOP KNOWLEDGE & SKILLS Needed to construct product	 PRODUCE OWN PRODUCT To meet criteria using knowledge & skills	 EVALUATE Reflect on what went well / what could improve
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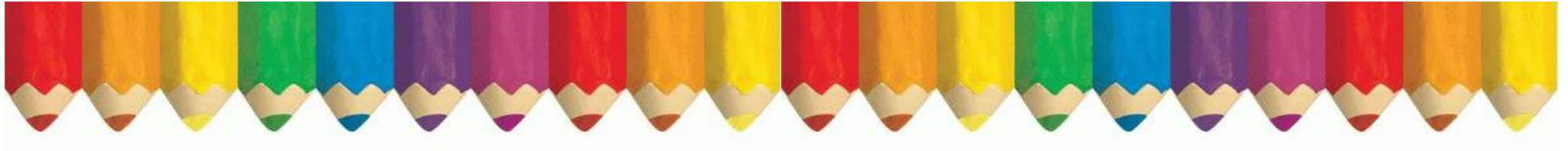
	Year 1/2	Year 3/4	Year 5/6
FOOD	<p>Preparing fruit and vegetables</p> <p>Designing</p> <ul style="list-style-type: none"> Design appealing products for a particular user based on simple design criteria. Generate initial ideas and design criteria through investigating a variety of fruit and vegetables. Communicate these ideas through talk and drawings. <p>Making</p> <ul style="list-style-type: none"> Use simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop safely. Select from a range of fruit and vegetables according to their characteristics e.g. colour, texture and taste to create a chosen product. <p>Evaluating</p> <ul style="list-style-type: none"> Taste and evaluate a range of fruit and vegetables to determine the intended user's preferences. Evaluate ideas and finished products against design criteria, including intended user and purpose. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> Know where a range of fruit and vegetables come from e.g. farmed or grown at home. Know and understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of <i>The eatwell plate</i>. Know and use technical and sensory vocabulary relevant to the project. <p>DT Projects on a Page\Project on a Page Planners - PDF\1_2 Preparing fruit and vegetables.pdf</p>	<p>Healthy and varied diet</p> <p>Designing</p> <ul style="list-style-type: none"> Generate and clarify ideas through discussion with peers and adults to develop design criteria including appearance, taste, texture and aroma for an appealing product for a particular user and purpose. Use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> Plan the main stages of a recipe, listing ingredients, utensils and equipment. Select and use appropriate utensils and equipment to prepare and combine ingredients. Select from a range of ingredients to make appropriate food products, thinking about sensory characteristics. <p>Evaluating</p> <ul style="list-style-type: none"> Carry out sensory evaluations of a variety of ingredients and products. Record the evaluations using e.g. tables and simple graphs. Evaluate the ongoing work and the final product with reference to the design criteria and the views of others. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> Know how to use appropriate equipment and utensils to prepare and combine food. Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. Know and use relevant technical and sensory vocabulary appropriately. <p>DT Projects on a Page\Project on a Page Planners - PDF\3_4 Healthy and varied diet.pdf</p>	<p>Celebrating culture and seasonality</p> <p>Designing</p> <ul style="list-style-type: none"> Generate innovative ideas through research and discussion with peers and adults to develop a design brief and criteria for a design specification. Explore a range of initial ideas, and make design decisions to develop a final product linked to user and purpose. Know and use words, annotated sketches and information and communication technology as appropriate to develop and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> Write a step-by-step recipe, including a list of ingredients, equipment and utensils Select and use appropriate utensils and equipment accurately to measure and combine appropriate ingredients. Make, decorate and present the food product appropriately for the intended user and purpose. <p>Evaluating</p> <ul style="list-style-type: none"> Carry out sensory evaluations of a range of relevant products and ingredients. Record the evaluations using e.g. tables/graphs/charts such as star diagrams. Evaluate the final product with reference back to the design brief and design specification, taking into account the views of others when identifying improvements. Understand how key chefs have influenced eating habits to promote varied and healthy diets. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> Know how to use utensils and equipment including heat sources to prepare and cook food. Know and understand about seasonality in relation to food products and the source of different food products.



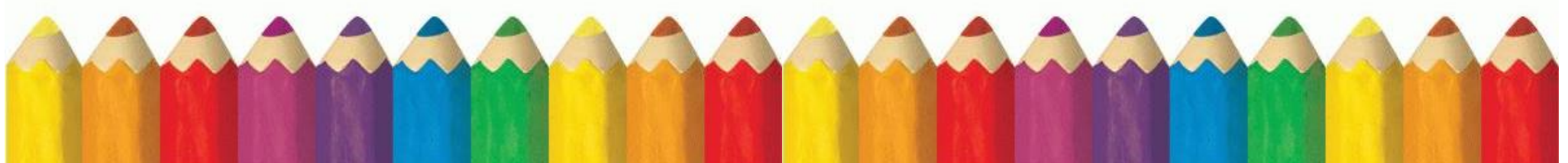


			<ul style="list-style-type: none"> • Know and use relevant technical and sensory vocabulary. <p>DT Projects on a Page\Project on a Page Planners - PDF\5_6 Celebrating culture and seasonality.pdf</p>
MECHANISMS	<p>Wheels and axles</p> <p>Designing</p> <ul style="list-style-type: none"> • Generate initial ideas and simple design criteria through talking and using own experiences. • Develop and communicate ideas through drawings and mock-ups. <p>Making</p> <ul style="list-style-type: none"> • Select from and use a range of tools and equipment to perform practical tasks such as cutting and joining to allow movement and finishing. • Select from and use a range of materials and components such as paper, card, plastic and wood according to their characteristics. <p>Evaluating</p> <ul style="list-style-type: none"> • Explore and evaluate a range of products with wheels and axles. • Evaluate their ideas throughout and their products against original criteria. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Explore and use wheels, axles and axle holders. • Distinguish between fixed and freely moving axles. • Know and use technical vocabulary relevant to the project. <p>DT Projects on a Page\Project on a Page Planners - PDF\1_2 Wheels and axles.pdf</p> <p>Sliders and levers</p> <p>Designing</p> <ul style="list-style-type: none"> • Generate ideas based on simple design criteria and their own experiences, explaining what they could make. • Develop, model and communicate their ideas through drawings and mock-ups with card and paper. <p>Making</p> <ul style="list-style-type: none"> • Plan by suggesting what to do next. • Select and use tools, explaining their choices, to cut, shape and join paper and card. 	<p>Levers and linkages</p> <p>Designing</p> <ul style="list-style-type: none"> • Generate realistic ideas and their own design criteria through discussion, focusing on the needs of the user. • Use annotated sketches and prototypes to develop, model and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> • Order the main stages of making. • Select from and use appropriate tools with some accuracy to cut, shape and join paper and card. • Select from and use finishing techniques suitable for the product they are creating. <p>Evaluating</p> <ul style="list-style-type: none"> • Investigate and analyse books and, where available, other products with lever and linkage mechanisms. • Evaluate their own products and ideas against criteria and user needs, as they design and make. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Understand and use lever and linkage mechanisms. • Distinguish between fixed and loose pivots. • Know and use technical vocabulary relevant to the project. <p>DT Projects on a Page\Project on a Page Planners - PDF\3_4 Levers and linkages.pdf</p>	<p>Pulleys or gears</p> <p>Designing</p> <ul style="list-style-type: none"> • Generate innovative ideas by carrying out research using surveys, interviews, questionnaires and web-based resources. • Develop a simple design specification to guide their thinking. • Develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views. <p>Making</p> <ul style="list-style-type: none"> • Produce detailed lists of tools, equipment and materials. Formulate step-by-step plans and, if appropriate, allocate tasks within a team. • Select from and use a range of tools and equipment to make products that that are accurately assembled and well finished. Work within the constraints of time, resources and cost. <p>Evaluating</p> <ul style="list-style-type: none"> • Compare the final product to the original design specification. • Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. • Consider the views of others to improve their work. • Investigate famous manufacturing and engineering companies relevant to the project. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Know that mechanical and electrical systems have an input, process and an output. • Know how gears and pulleys can be used to speed up, slow down or change the direction of movement. • Know and use technical vocabulary relevant to the project. <p>DT Projects on a Page\Project on a Page Planners - PDF\5_6 Pulleys or gears.pdf</p>





	<ul style="list-style-type: none"> • Use simple finishing techniques suitable for the product they are creating. <p>Evaluating</p> <ul style="list-style-type: none"> • Explore a range of existing books and everyday products that use simple sliders and levers. • Evaluate their product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Use sliders and levers. • Know that different mechanisms produce different types of movement. • Know and use technical vocabulary relevant to the project. <p>DT Projects on a Page\Project on a Page Planners - PDF\1_2 Sliders and levers.pdf</p>		
STRUCTURES	<p>Freestanding structures</p> <p>Designing</p> <ul style="list-style-type: none"> • Generate ideas based on simple design criteria and their own experiences, explaining what they could make. • Develop, model and communicate their ideas through talking, mock-ups and drawings. <p>Making</p> <ul style="list-style-type: none"> • Plan by suggesting what to do next. • Select and use tools, skills and techniques, explaining their choices. • Select new and reclaimed materials and construction kits to build their structures. • Use simple finishing techniques suitable for the structure they are creating. <p>Evaluating</p> <ul style="list-style-type: none"> • Explore a range of existing freestanding structures in the school and local environment e.g. everyday products and buildings. • Evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Know how to make freestanding structures stronger, stiffer and more stable. • Know and use technical vocabulary relevant to the project. 	<p>Shell structures</p> <p>Designing</p> <ul style="list-style-type: none"> • Generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and purpose of the product. • Develop ideas through the analysis of existing products and use annotated sketches and prototypes to model and communicate ideas. <p>Making</p> <ul style="list-style-type: none"> • Order the main stages of making. • Select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy. • Explain their choice of materials according to functional properties and aesthetic qualities. • Use finishing techniques suitable for the product they are creating. <p>Evaluating</p> <ul style="list-style-type: none"> • Investigate and evaluate a range of existing shell structures including the materials, components and techniques that have been used. • Test and evaluate their own products against design criteria and the intended user and purpose. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Know how to construct strong, stiff shell structures. • Use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. 	<p>Frame structures</p> <p>Designing</p> <ul style="list-style-type: none"> • Carry out research into user needs and existing products, using surveys, interviews, questionnaires and web-based resources. • Develop a simple design specification to guide the development of their ideas and products, taking account of constraints including time, resources and cost. • Generate, develop and model innovative ideas, through discussion, prototypes and annotated sketches. <p>Making</p> <ul style="list-style-type: none"> • Formulate a clear plan, including a step-by-step list of what needs to be done and lists of resources to be used. • Competently select from and use appropriate tools to accurately measure, mark out, cut, shape and join construction materials to make frameworks. • Use finishing and decorative techniques suitable for the product they are designing and making. <p>Evaluating</p> <ul style="list-style-type: none"> • Investigate and evaluate a range of existing frame structures. • Evaluate their products against their design specification, intended user and purpose, identifying strengths and areas for development, and carrying out appropriate tests. • Research key events and individuals relevant to frame structures. <p>Technical knowledge and understanding</p>



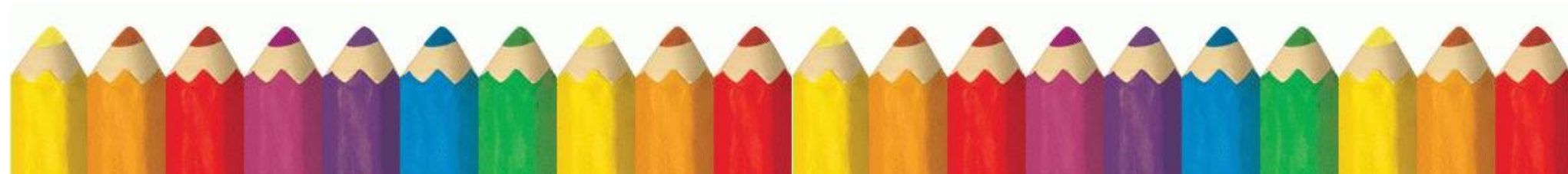


	DT Projects on a Page\Project on a Page Planners - PDF\1_2 Freestanding structures.pdf	<ul style="list-style-type: none"> Know and use technical vocabulary relevant to the project. DT Projects on a Page\Project on a Page Planners - PDF\3_4 Shell structures.pdf	<ul style="list-style-type: none"> Know how to strengthen, stiffen and reinforce 3-D frameworks. Know and use technical vocabulary relevant to the project. DT Projects on a Page\Project on a Page Planners - PDF\5_6 Frame structures.pdf
TEXTILES	<p>Templates and joining</p> <p>Designing</p> <ul style="list-style-type: none"> Design a functional and appealing product for a chosen user and purpose based on simple design criteria. Generate, develop, model and communicate their ideas as appropriate through talking, drawing, templates, mock-ups and information and communication technology. <p>Making</p> <ul style="list-style-type: none"> Select from and use a range of tools and equipment to perform practical tasks such as marking out, cutting, joining and finishing. Select from and use textiles according to their characteristics. <p>Evaluating</p> <ul style="list-style-type: none"> Explore and evaluate a range of existing textile products relevant to the project being undertaken. Evaluate their ideas throughout and their final products against original design criteria. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> Know how simple 3-D textile products are made, using a template to create two identical shapes. Know how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling. Explore different finishing techniques e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons. Know and use technical vocabulary relevant to the project. DT Projects on a Page\Project on a Page Planners - PDF\1_2 Templates and joining.pdf	<p>2D shape to 3D project</p> <p>Designing</p> <ul style="list-style-type: none"> Generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose and specific user/s. Produce annotated sketches, prototypes, final product sketches and pattern pieces. <p>Making</p> <ul style="list-style-type: none"> Plan the main stages of making. Select and use a range of appropriate tools with some accuracy e.g. cutting, joining and finishing. Select fabrics and fastenings according to their functional characteristics e.g. strength, and aesthetic qualities e.g. pattern. <p>Evaluating</p> <ul style="list-style-type: none"> Investigate a range of 3-D textile products relevant to the project. Test their product against the original design criteria and with the intended user. Take into account others' views. Understand how a key event/individual has influenced the development of the chosen product and/or fabric. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> Know how to strengthen, stiffen and reinforce existing fabrics. Know how to securely join two pieces of fabric together. Know the need for patterns and seam allowances. Know and use technical vocabulary relevant to the project. DT Projects on a Page\Project on a Page Planners - PDF\3_4 2D shape to 3D product.pdf	<p>Combining different fabric shapes</p> <p>Designing</p> <ul style="list-style-type: none"> Generate innovative ideas by carrying out research including surveys, interviews and questionnaires. Develop, model and communicate ideas through talking, drawing, templates, mock-ups and prototypes and, where appropriate, computer-aided design. Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification. <p>Making</p> <ul style="list-style-type: none"> Produce detailed lists of equipment and fabrics relevant to their tasks. Formulate step-by-step plans and, if appropriate, allocate tasks within a team. Select from and use a range of tools and equipment to make products that are accurately assembled and well finished. Work within the constraints of time, resources and cost. <p>Evaluating</p> <ul style="list-style-type: none"> Investigate and analyse textile products linked to their final product. Compare the final product to the original design specification. Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. Consider the views of others to improve their work. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> Know a 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics. Know how fabrics can be strengthened, stiffened and reinforced where appropriate. DT Projects on a Page\Project on a Page Planners - PDF\5_6 Combining different fabric shapes.pdf





<p>ELECTRICAL SYSTEMS</p>	<p>Prior learning</p> <ul style="list-style-type: none"> • Constructed a simple series electrical circuit in science, using bulbs, switches and buzzers. • Cut and joined a variety of construction materials, such as wood, card, plastic, reclaimed materials and glue 	<p>Simple circuits and switches</p> <p>Designing</p> <ul style="list-style-type: none"> • Gather information about needs and wants, and develop design criteria to inform the design of products that are fit for purpose, aimed at particular individuals or groups. • Generate, develop, model and communicate realistic ideas through discussion and, as appropriate, annotated sketches, cross-sectional and exploded diagrams. <p>Making</p> <ul style="list-style-type: none"> • Order the main stages of making. • Select from and use tools and equipment to cut, shape, join and finish with some accuracy. • Select from and use materials and components, including construction materials and electrical components according to their functional properties and aesthetic qualities. <p>Evaluating</p> <ul style="list-style-type: none"> • Investigate and analyse a range of existing battery-powered products. • Evaluate their ideas and products against their own design criteria and identify the strengths and areas for improvement in their work. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers. • Apply their understanding of computing to program and control their products. • Know and use technical vocabulary relevant to the project. <p>DT Projects on a Page\Project on a Page Planners - PDF\3_4 Simple circuits and switches.pdf</p>	<p>More complex switches</p> <p>Designing</p> <ul style="list-style-type: none"> • Use research to develop a design specification for a functional product that responds automatically to changes in the environment. Take account of constraints including time, resources and cost. • Generate and develop innovative ideas and share and clarify these through discussion. • Communicate ideas through annotated sketches, pictorial representations of electrical circuits or circuit diagrams. <p>Making</p> <ul style="list-style-type: none"> • Formulate a step-by-step plan to guide making, listing tools, equipment, materials and components. • Competently select and accurately assemble materials, and securely connect electrical components to produce a reliable, functional product. • Create and modify a computer control program to enable an electrical product to work automatically in response to changes in the environment. <p>Evaluating</p> <ul style="list-style-type: none"> • Continually evaluate and modify the working features of the product to match the initial design specification. • Test the system to demonstrate its effectiveness for the intended user and purpose. • Investigate famous inventors who developed ground-breaking electrical systems and components. <p>Technical knowledge and understanding</p> <ul style="list-style-type: none"> • Understand and use electrical systems in their products. • Apply their knowledge of computing to program, monitor and control their products. • Know and use technical vocabulary relevant to the project. <p>DT Projects on a Page\Project on a Page Planners - PDF\5_6 More complex switches.pdf</p>
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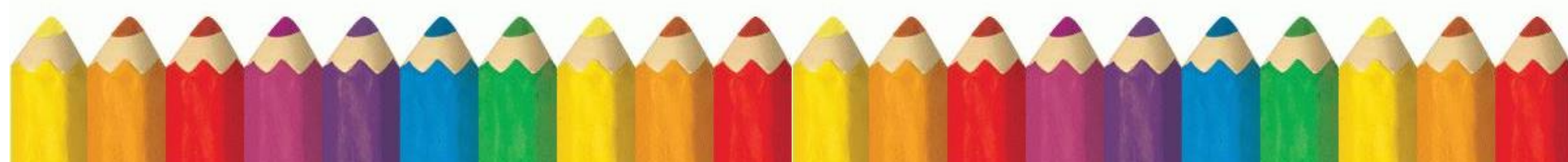
Technology – Support & Challenge

Support - Generic design and technology skills

P4	P5	P6	P7	P8	Next steps...
<ul style="list-style-type: none"> • With help, begin to assemble components provided for an activity. • Contribute to activities by coactively grasping and moving simple tools. • Explore options within a limited range of materials. 	<ul style="list-style-type: none"> • Use a basic tool, with support. • Demonstrate preferences for products, materials and ingredients. 	<ul style="list-style-type: none"> • Recognise familiar products and explore the different parts they are made from. • Watch others using a basic tool and copy the actions. • Begin to offer responses to making activities. 	<ul style="list-style-type: none"> • Operate familiar products, with support, and explore how they work. • Use basic tools or equipment in simple processes, chosen in negotiation with the teacher. • Begin to communicate preferences in designing and making. 	<ul style="list-style-type: none"> • Explore familiar products and communicate views about them when prompted. • With help, manipulate a range of basic tools in making activities. • Begin to contribute to decisions about what to do and how. 	<p>Look at the Early Learning Goals linked to Technology.</p>

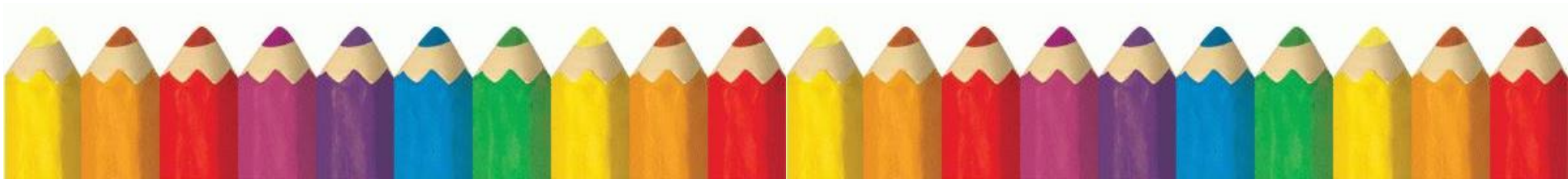
Challenge - Years 7, 8 and 9

Design and technology opportunities	Mastering practical skills	Designing, making, evaluating and improving	Taking inspiration from design throughout history
<ul style="list-style-type: none"> • Work in a number of fields including: • materials (including textiles) • horticulture • electricals and electronics • construction • mechanics • cooking • emerging areas of design and technology (such as food design, design for disability, and age-related design). 	<ul style="list-style-type: none"> • Increase skills, knowledge and competence in using materials, machinery, technique and processes. • Complete common practical, diagnostic, repair and maintenance tasks and multi-stage processes. • Develop well-conceived and well-executed practical solutions. • Select and use complex tools, equipment, machinery and techniques skillfully. • Develop sophisticated practical skills and carry out diagnostic, repair and maintenance tasks in a range of contexts. • Explore materials and technological developments, and experiment with using them. • Understand the importance of nutrition, a balanced diet and about the characteristics of a broad range of ingredients in choosing and preparing food. 	<ul style="list-style-type: none"> • Plan, design, make and evaluate a range of quality products, in a variety of materials, that are fit for purpose. • Communicate ideas and designs skilfully and accurately in 2D and 3D, using a variety of techniques, including computing. 	<ul style="list-style-type: none"> • Analyse the work of others, including iconic designs, to inform work. • Use historical and contextual references to influence and improve work. • Know developments in design and technology and the responsibilities of designers, including environmental responsibilities.





	<ul style="list-style-type: none">• Cook a repertoire of savoury meals and become confident in a range of cooking techniques.		
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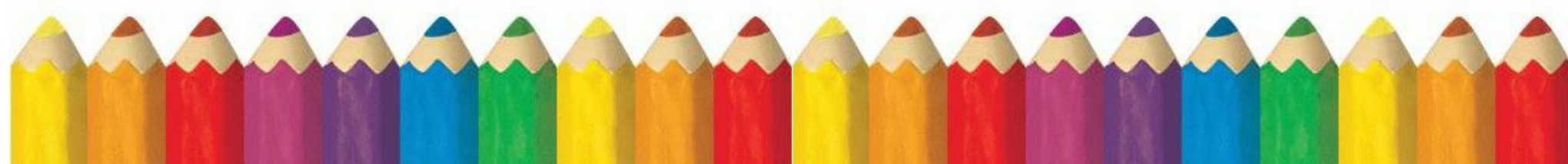


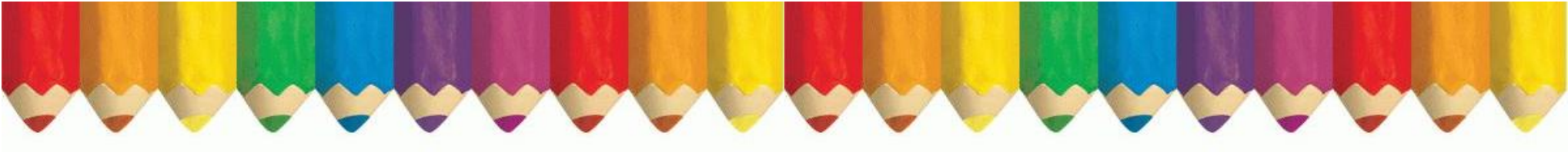


Watcombe Primary School



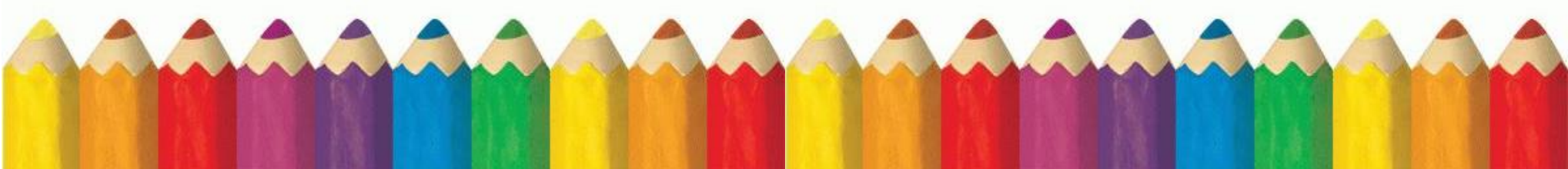
Mathematics





Mathematics – Intent, Implementation, Impact Statement

Intent
<p>Mathematics is a tool for everyday life. It is a network of concepts and relationships that provide a way of making sense of the world. It is used to analyse and communicate information and ideas and to tackle a range of practical tasks and real life problems.</p> <p><u>We seek to develop:</u></p> <ol style="list-style-type: none">1. A positive attitude to mathematics which challenges children and gives them a sense of achievement.2. A confidence in mathematics in which ideas can be expressed and communicated with assurance and enjoyment.3. The effective use of mathematics in other areas of the curriculum to help solve problems children encounter in everyday life.4. The ability to work co-operatively on a piece of work in which all children make a contribution that is valued by everyone. We believe co-operative activities contribute to the mathematical development of the child through thinking, discussion and mutual/democratic refinement of ideas.5. The ability for all children to work in an independent, persistent, systematic, creative and imaginative way, where the process and outcome are checked and children are encouraged to ask themselves what if? Is there a better method? Etc... Therefore using a range of mental and written strategies.6. Persistence throughout a piece of work which requires some perseverance over a period of time, working both co-operatively and independently. <p>~ All staff have high expectations for achievement by their pupils. ~ That high standards of effective teaching and learning pervade the whole school. ~ Monitoring of planning and assessment. ~ Clear targets for raising standards. ~ Whole school commitment to staff development in terms of subject knowledge and teaching strategies. ~ Correct and consistent use of mathematical vocabulary and notation. ~ Emphasis on mental strategies and calculations.</p> <p>■ To inspire, develop and instil a confidence, enjoyment and appreciation for mathematics. ■ To help each child develop as far as possible the necessary knowledge, concepts, understanding and skills in mathematics required for further study and into adult life.</p>
Implementation
<p><u>CURRICULUM</u></p> <p>~ The school is committed to using the Primary National Strategy ~ Nursery/Reception use the Foundation curriculum in meeting the needs of the Foundation stage.</p> <p><u>KNOWLEDGE, SKILLS AND UNDERSTANDING</u></p> <p>~ The objectives in the Yearly Teaching Programmes cover all aspects of the National Curriculum for maths in Key Stages 1 & 2. The programme for the Foundation Stage takes account of the Early Learning Goals for 3-5 year olds, and provides a link from these goals to the National Curriculum.</p> <p>Because at Watcombe Primary School our aim is to allow the children opportunities to facilitate their own learning through a co-operative and investigative approach, lessons might follow a structure which includes:</p> <ul style="list-style-type: none">-Hiding a learning objective for children to discover themselves-Using plenaries in different parts of the lessons-Investigating a new concept before any modelling takes place-Encouraging children to draw their own conclusions rather than always focussing on 'the right' answer-Giving children opportunities to learn from each other
Impact
<p>Throughout the school, careful planning ensures that children are given opportunities for:</p> <p>~ Practical activities and mathematical games.</p>





- ~ Problem solving.
- ~ Individual, group and whole class discussions and activities.
- ~ Open and closed tasks and questioning.
- ~ A range of methods of calculating e.g. mental, informal and standard pencil and paper methods.

MONITORING

- ~ All medium term plans are accessible for monitoring purposes.
- ~ A range of pupils work is scrutinised regularly in order to monitor standards, marking, consistency across classes and progress made.
- ~ Lesson observations are undertaken to ascertain standards of teaching.

ASSESSMENT

Short Term ~ Teachers evaluate plans on a daily basis.

~ Children are encouraged to assess their own work in the form of written comments, symbols, depending on their age. This gives the children opportunities to express their feelings about their learning to the teacher. Teachers make observations and informal assessments daily.

~ Marking of work, including by and with pupils, and the above tasks and activities are used to review how well pupils have understood what has been taught. This also identifies any remaining misconceptions. The aim is to rectify these as soon as possible and to take account of them in the next phase of planning. Intervention may take place to prepare the children for the next lesson.

Medium Term ~ Information gathered from short-term assessment combines to form a bigger picture through medium term records.

~ Outcomes from these assessments are not only used to inform teachers about children's current progress, but also about future learning. These outcomes are used when teachers plan for the short and medium term.

Long term ~ Mid-term and end of year formal tests are undertaken to assess attainment.





Mathematics – Characteristics of Good Learners

Watcombe School helps students to become more confident in their learning by following the principles of 'Growth Mindset'.

In addition to this, effective mathematicians should display the following characteristics:

- Be intellectually curious:

In order to be a successful student, it is fundamentally important that children are interested in, excited by and engaged with Maths.

- Self-driven

The need to be able to motivate themselves. Really excellent students do more than is required from them, to be the absolute best they can be.

- Capable of admitting uncertainty

One quality of good learners in Maths is the ability to admit when they don't understand something. Often they may feel embarrassed to admit the gaps in their knowledge, but in fact this is the only way to learn. It's fine to say that they don't know something, or that they don't understand it – this way, teachers or other students around can help by explaining the topic more clearly, and the student will benefit in the long run.

- Creative and original

The ability to come up with new ideas or new ways of thinking about a problem is a characteristic of a good Maths learner. Not being afraid to give opinions on a topic or argument, even if it's contradictory to what others have said.

- Seeing the big picture and thinking broadly

Good Maths learners need to be able to take their knowledge and fit it in to a broader picture of the subject; remembering what has been taught before and fitting this new knowledge into previous knowledge and into a wider perspective.

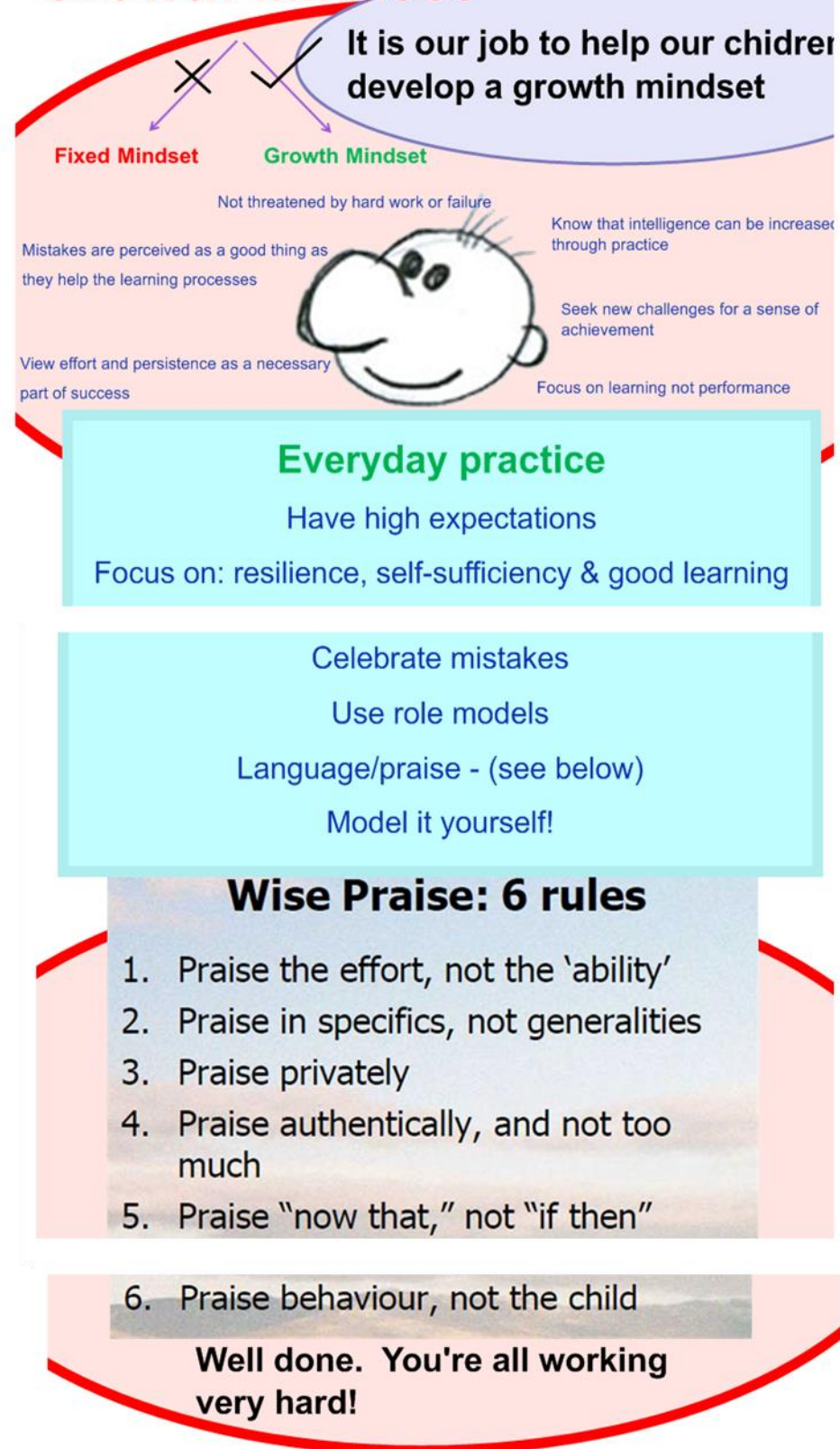
- Solid analysis skills

The ability to critically analyse the material.


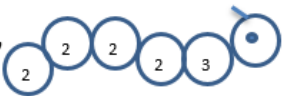
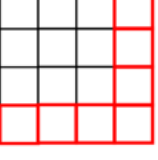


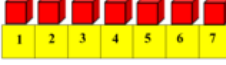



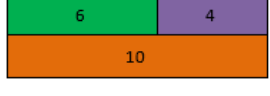



- Communication skills

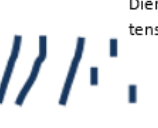
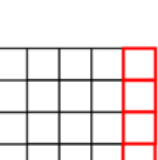
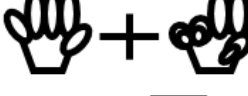
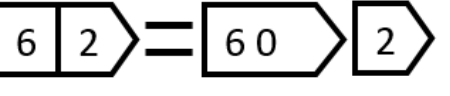
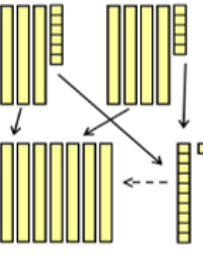
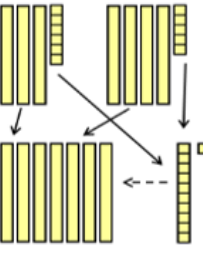


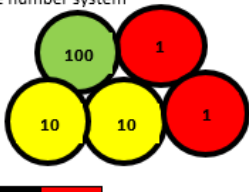

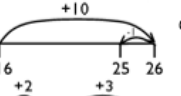
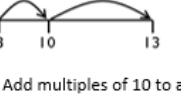

Being able to present the information they know to an audience using the correct vocabulary is vital for demonstrating their grasp of the material and as a tool in retaining the material.

Growth Mindset

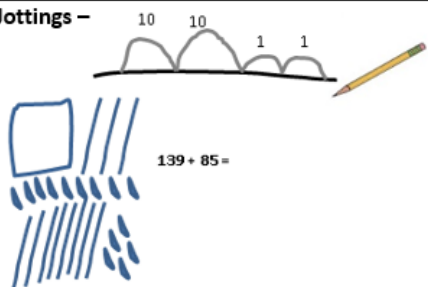
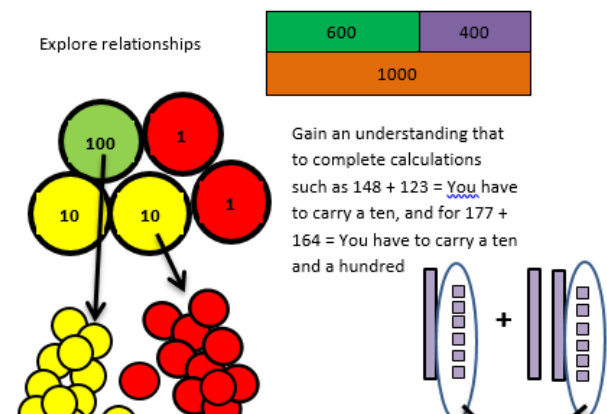
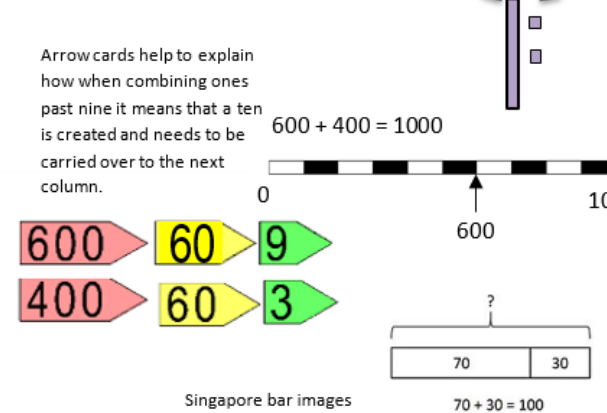
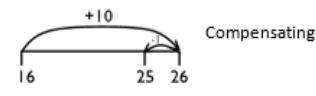
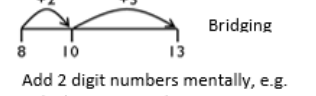


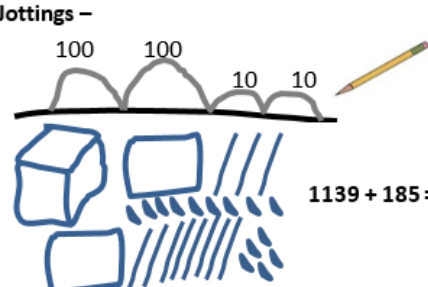
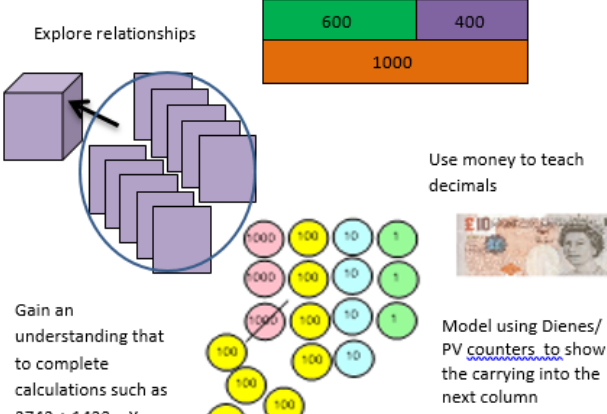
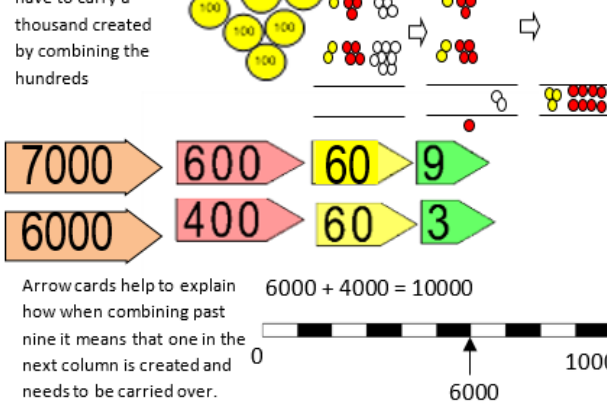

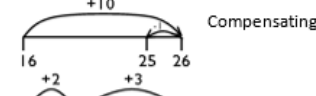
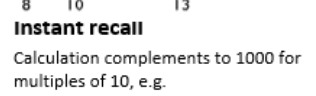
Mathematics – Calculation Progression (Addition)

Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
<p>Year 1- Essential to develop cardinal and ordinal representations of number in parallel - Understand + as finding the total of two or more sets of objects - Introduce 'How many more?'</p> <p>Vocabulary: add, plus, total, altogether</p> <p>National Curriculum</p> <ul style="list-style-type: none"> Read, write and interpret mathematical statements involving addition (+) and equals (=) signs Represent and use number bonds and related subtraction facts within 20 Add and subtract one-digit and two-digit numbers to 20, including zero (<i>using concrete objects and pictorial representations</i>) <p>Pupils should memorise and reason with number bonds to 10 and 20 in several forms (e.g. $9 + 7 = 16$; $16 - 7 = 9$; $7 = 16 - 9$). They should realise the effect of adding or subtracting zero. This establishes addition and subtraction as related operations.</p> <p>Guidance Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$ They discuss and solve problems in familiar practical contexts, including using quantities. Problems should include the terms put together, add, altogether, total, take away, difference between, more than and less than so that pupils develop the concept of addition and subtraction and are enabled to use these operations flexibly.</p>	<p>Jottings –</p>  <p>Record their work with objects, pictures or diagrams</p> <p>Begin to use the symbols '+' and '=' to record additions e.g.</p> <p>$10 + 5 = 15$</p> <p>$3 + ? = 7$</p>  <p>$10 = 8 + 2$</p> <p>Number stories – Use familiar and creative situations</p> 	<p>Use of manipulatives –</p> <p>Combine sets to make a larger tot</p>  <p>Use numicon to combine numbers to find a total</p>  <p>Bead bars to add</p>  <p>All coins adding money</p>  <p>Explore all place value manipulatives including bundles of ten</p>  <p>“10... 11 12 13”</p>  <p>“5... 6 7 8”</p> <p>Explore relationships</p> 	<p>Subitising – regular dot cards to build visual image</p>  <p>Add dots mentally by combining patterns</p>  <p>Pupils should memorise and reason with number bonds to 10 and 20 in several forms (e.g. $9 + 7 = 16$; $16 - 7 = 9$; $7 = 16 - 9$). They should realise the effect of adding or subtracting zero. This establishes addition and subtraction as related operations.</p> <p>Instant recall</p> <ul style="list-style-type: none"> Doubles of numbers to 10 Number bonds to 20 <p>Can select two groups of objects or two structured images, or more groups, to make a given total</p> <p>Can find the total number of items in two groups by counting them all</p> <p>Can use a <u>numberline</u> to count on from the larger number in ones</p> <p>Can solve addition problems by counting on in ones from the larger number using their fingers</p> 

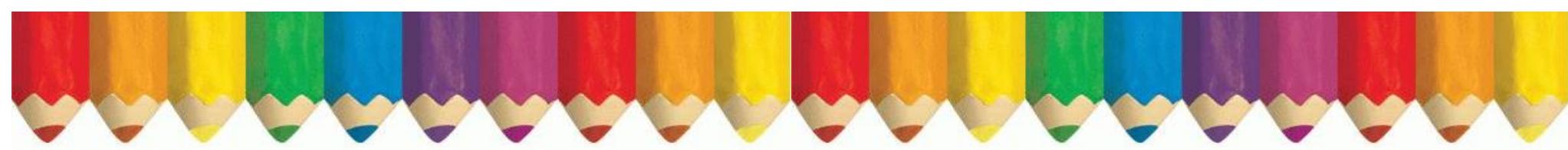
Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
<p>Year 2- Vocabulary: add, plus, total, altogether</p> <p>National Curriculum <i>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting)</i> <i>Select a mental strategy appropriate for the numbers involved in the calculation</i></p> <p>Show that addition of two numbers can be done in any order (commutative) Add and subtract numbers using concrete objects, pictorial representations, and mentally, including:</p> <ul style="list-style-type: none"> a two-digit number and ones, a two-digit number and tens, two two-digit numbers, adding three one-digit numbers. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. Solve problems with addition and subtraction <i>including with missing numbers</i>: - using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods <p>Guidance Pupils extend their understanding of the language of addition and subtraction to include sum and difference. Pupils practise addition and subtraction to 20 to become increasingly fluent in deriving facts such as using $3 + 7 = 10$; $10 - 7 = 3$ and $7 = 10 - 3$ to calculate $30 + 70 = 100$; $100 - 70 = 30$ and $70 = 100 - 30$. They check their calculations, including by adding to check subtraction and adding numbers in a different order to check addition (for example, $5 + 2 + 1 = 1 + 5 + 2 = 1 + 2 + 5$). This establishes commutativity and associativity of addition. Recording addition and subtraction in columns supports place value and prepares for formal written methods with larger numbers</p>	<p>Jottings -</p> <p>Dienes jottings to add tens and ones (units)</p>  <p>Numberline jottings</p> <p>Horizontally and vertically set calculations with numbers up to 100 (ensure place value knowledge is sound up to 100)</p> <p>e.g. $21 + 21 = 42$ (use place value) $27 + 10 = 37$ (use ten more knowledge) $26 + 4 = 30$ (use bonds knowledge)</p> <p>Expanded:</p> <p>$40 \ 3 + 30 \ 2$</p> <p>Compact:</p> <p>$43 + 32$</p> <p>Understand that the numbers can .</p> <p>Number stories – Use familiar and creative situations</p> 	<p>Use of manipulatives –</p> <p>Use fingers of different values to count in different ways</p>  <p>Numicon to add ten and explore place value</p>  <p>Arrow cards explore place value and base ten</p>  <p>Dienes combine numbers</p>  <p>Cuisenaire explore number relationships</p>  <p>Use money count in tens then ones</p>  <p>Place value counters explore number system</p> 	<p>Subitising – regular dot cards to build visual image</p>  <p>Compensating</p>  <p>Bridging</p>  <p>Add multiples of 10 to a 2 digit number, e.g. calculate $26 + 30$ (By counting on in 10s or partitioning)</p> <p>Can solve addition problems by counting on in ones from the larger number using their fingers</p>  <p>Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100</p> <p><i>Recall and use number bonds for multiples of 5 totalling 60 (to support telling time to nearest 5 minutes)</i></p> <p>Instant recall</p> <ul style="list-style-type: none"> Doubles of numbers to 20 Number bonds to 20 Multiples of 10 which total 100 All addition facts for totals to 10 Add 10 to any number to 90 <p>Use knowledge of doubles to derive near doubles</p>



Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
Year 3- National Curriculum <i>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</i> <i>Select a mental strategy appropriate for the numbers involved in the calculation</i> Add and subtract numbers mentally, including, a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction Estimate the answer to a calculation and use inverse operations to check answers Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction Guidance Pupils practise solving varied addition and subtraction questions. For mental calculations with two-digit numbers, the answers could exceed 100. Pupils use their understanding of place value and partitioning, and practise using columnar addition and subtraction with increasingly large numbers up to three digits to become fluent	Jottings –  Dienes jottings that combine ones and tens and tens and hundreds Horizontal and vertically set calculations with numbers up to 1000 (ensure place value knowledge is sound up to 1000) $1923 + 13 = 1936$ (use place value) $227 + 10 = 237$ (use ten plus knowledge) $620 + 481 = 1101$ (use bonds knowledge) Column addition using two 3-digit numbers. Re-group Expanded: $\begin{array}{r} 100\ 80\ 9 \\ +\ 100\ 40\ 2 \\ \hline 300\ 30\ 1 \\ \hline 100\ 10 \end{array}$ Compact: $\begin{array}{r} 189 + 142 \\ +\ 142 \\ \hline 331 \\ \hline 11 \end{array}$	Use of manipulatives – Explore relationships  Gain an understanding that to complete calculations such as $148 + 123 =$ You have to carry a ten, and for $177 + 164 =$ You have to carry a ten and a hundred Arrow cards help to explain how when combining ones past nine it means that a ten is created and needs to be carried over to the next column. $600 + 400 = 1000$  Singapore bar images $70 + 30 = 100$	Mental Calculations/Known Facts Adding numbers mentally -  Compensating  Bridging Add 2 digit numbers mentally, e.g. Calculate $36 + 19$ (Partitioning, compensating, bridging or near doubles) Complements to 100 Counting on strategy Instant recall <i>Add and subtract numbers mentally, including:</i> <i>a three-digit number and ones</i> <i>a three-digit number and tens</i> <i>a three-digit number and hundreds</i> Double 15, 25, 35 and 45 Addition facts for multiples of 10, e.g. $70 + 90 = 160$ Multiples of 5 which total 100 <i>Recall/use addition/subtraction facts for 100 (multiples of 5 and 10)</i> <i>Derive and use addition and subtraction facts for 100</i> <i>Derive and use addition and subtraction facts for multiples of 100 totalling 1000</i>

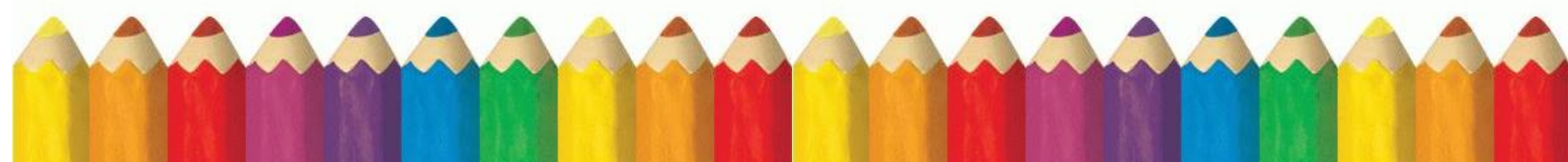
Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
Year 4 – National Curriculum <i>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</i> Add and subtract numbers with up to 4 digits <i>and decimals with one decimal place</i> using the formal written methods of columnar addition and subtraction where appropriate Estimate; use inverse operations to check answers to a calculation Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why <i>Solve addition and subtraction problems involving missing numbers</i> Guidance Pupils continue to practise both mental methods and columnar addition and subtraction with increasingly large numbers to aid fluency	Jottings –  Dienes jottings that combine ones and tens, tens and hundreds, hundreds and thousands. Horizontal and vertically set calculations with numbers up to 10000 (ensure place value knowledge is sound up to 10000) $11923 + 11013 = 22936$ (use place value) $10227 + 110 = 10337$ (use ten plus, 100 plus knowledge) $10620 + 481 = 11101$ (use bonds knowledge) Practise columnar addition with increasingly large numbers to aid fluency. Re-group Expanded: $\begin{array}{r} 1000\ 100\ 80\ 9 \\ +\ 100\ 40\ 2 \\ \hline 1000\ 300\ 30\ 1 \\ \hline 100\ 10 \end{array}$ Compact: $\begin{array}{r} 1189 + 142 \\ +\ 142 \\ \hline 1331 \\ \hline 11 \end{array}$	Use of manipulatives - Explore relationships  Gain an understanding that to complete calculations such as $2742 + 1423 =$ You have to carry a thousand created by combining the hundreds Use money to teach decimals  Model using Dienes/PV counters to show the carrying into the next column Arrow cards help to explain how when combining past nine it means that one in the next column is created and needs to be carried over. $6000 + 4000 = 10000$ 	Mental Calculations/Known Facts Adding numbers mentally - Add 3 digit numbers mentally, e.g. Calculate $236 + 119$ (Partitioning, compensating, bridging or near doubles) Complements to 100 Counting on strategy  Compensating  Bridging Instant recall Calculation complements to 1000 for multiples of 10, e.g. $340 + ___ = 1000$ $100 = ___ + ___$ Calculate decimal complements to 10 or 100. Doubles of tenths to 0.9 and corresponding halves. Addition facts for tenths up to 0.9, e.g. $0.7 + 0.9 = 1.6$ <i>Select a mental strategy appropriate for the numbers involved in the calculation</i> <i>Recall and use addition and subtraction facts for 100</i> <i>Recall and use +/- facts for multiples of 100 totalling 1000</i> <i>Derive and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place)</i> <i>Add and subtract mentally combinations of two and three digit numbers and decimals to one decimal place</i>



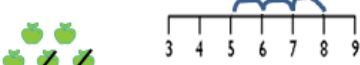
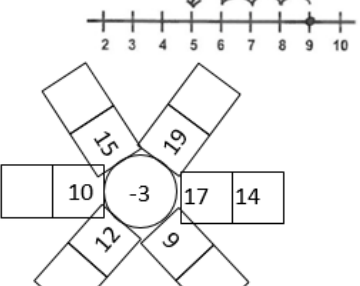
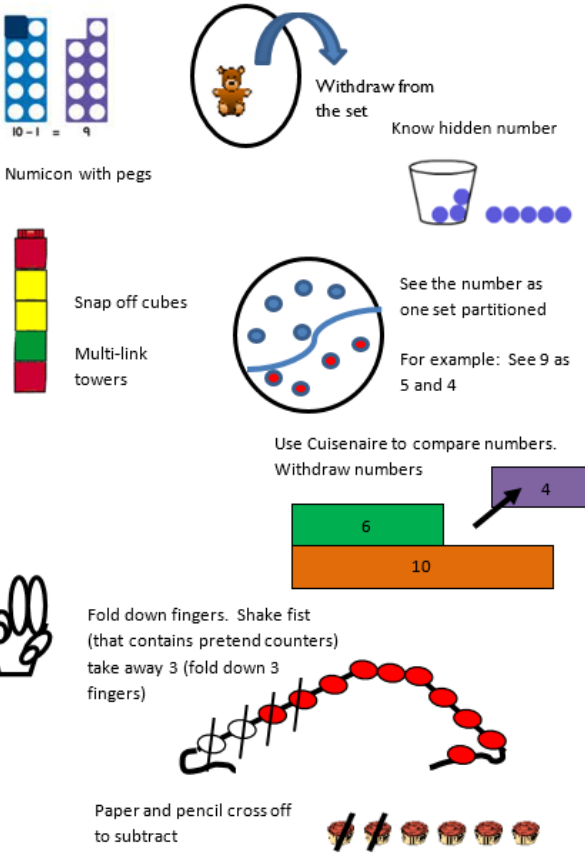
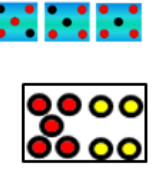


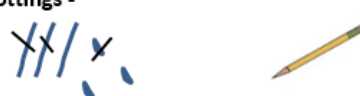
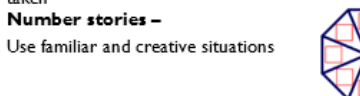
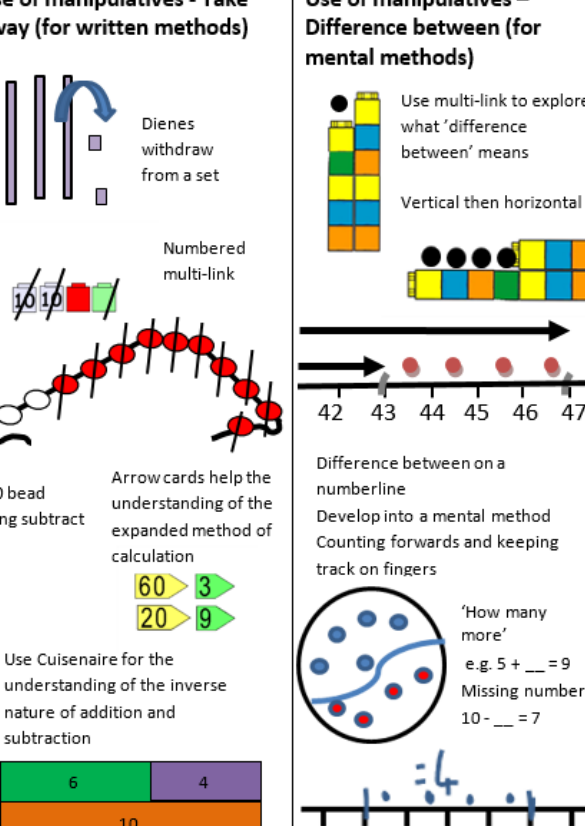

Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
<p>Year 5 -</p> <p>National Curriculum</p> <p>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</p> <p>Add and subtract whole numbers with more than 4 digits and decimals with two decimal places, including using formal written methods (columnar addition and subtraction)</p> <p>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</p> <p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</p> <p>Solve addition and subtraction problems involving missing numbers</p> <p>Guidance</p> <p>Pupils practise using the formal written methods of columnar addition and subtraction with increasingly large numbers to aid fluency</p>	<p>Jottings –</p> <p>Dienes, numberline, and place value counter jottings that combine ones and tens, tens and hundreds, hundreds and thousands.</p> <p>11923 + 11013 = 22936 (use place value)</p> <p>10227 + 110 = 10337 (use ten plus, 100 plus knowledge)</p> <p>10620 + 481 = 11101 (use bonds knowledge)</p> <p>When working with money, teach that e.g. £2.99 + £5.99 can quickly be added mentally using compensating (£3 + £6 – 2p)</p> <p>Children should 'see' decimals so that they are not saying 0.5 + 0.6 = 0.11</p> <p>Practise columnar addition with increasingly large numbers to aid fluency</p> <p>789 + 642 becomes</p> $\begin{array}{r} 789 \\ + 642 \\ \hline 1431 \end{array}$ <p>Re-group Compact:</p> $\begin{array}{r} 1431 \\ 11 \\ \hline \end{array}$ <p>Answer: 1431</p>	<p>Use of manipulatives –</p> <p>Column addition</p> <p>Model using Dienes/ PV counters to show the carrying into the next column</p> <p>Addition facts for decimals</p> <p>Introduce using Dienes:</p> <p>0.6 + 0.5 = 1.1</p> <p>Use Cuisenaire with decimal values to explore number</p> <p>Gain an understanding that to complete calculations such as 2742 + 1423 = You have to carry a thousand created by combining the hundreds</p>	<p>Adding numbers mentally –</p> <p>Select a mental strategy appropriate for the numbers involved in the calculation</p> <p>Practise mental calculations with increasingly large numbers to aid fluency (for example, 12 462 – 2300 = 10 162).</p> <p>Calculation complements to 1000 for multiples of 10, e.g.</p> <p>340 + ____ = 1000</p> <p>100 = ____ + ____</p> <p>Instant recall</p> <p>Recall and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place)</p> <p>Derive and use addition and subtraction facts for 1 (with decimal numbers to two decimal places)</p> <p>Add and subtract numbers mentally with increasingly large numbers and decimals to two decimal places</p> <p>Doubles of tenths to 0.9 and corresponding halves</p> <p>Addition facts for tenths up to 0.9, e.g. 0.7 + 0.9 = 1.6</p>

Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
<p>Year 6 -</p> <p>National Curriculum</p> <p>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</p> <p>Add and subtract whole numbers and decimals using formal written methods (columnar addition and subtraction)</p> <p>Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</p> <p>Use knowledge of the order of operations to carry out calculations</p> <p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</p> <p>Solve problems involving all four operations, including those with missing numbers</p> <p>Guidance</p> <p>Pupils practise addition, subtraction for larger numbers, using the formal written methods of columnar addition and subtraction.</p> <p>Pupils round answers to a specified degree of accuracy, for example, to the nearest 10, 20, 50 etc., but not to a specified number of significant figures.</p> <p>Pupils explore the order of operations using brackets; for example, 2 + 1 x 3 = 5 and (2 + 1) x 3 = 9.</p> <p>Common factors can be related to finding equivalent fractions.</p>	<p>Jottings –</p> <p>Dienes, numberline, and place value counter jottings that combine ones and tens, tens and hundreds, hundreds and thousands.</p> <p>11923 + 11013 = 22936 (use place value)</p> <p>10227 + 110 = 10337 (use ten plus, 100 plus knowledge)</p> <p>10620 + 481 = 11101 (use bonds knowledge)</p> <p>When working with money, teach that e.g. £2.99 + £5.99 can quickly be added mentally using compensating (£3 + £6 – 2p)</p> <p>Children should 'see' decimals so that they are not saying 0.5 + 0.6 = 0.11</p> <p>Practise columnar addition with increasingly large numbers to aid fluency</p> <p>789 + 642 becomes</p> $\begin{array}{r} 789 \\ + 642 \\ \hline 1431 \end{array}$ <p>Re-group Compact:</p> $\begin{array}{r} 1431 \\ 11 \\ \hline \end{array}$ <p>Answer: 1431</p>	<p>Use of manipulatives –</p> <p>Column addition</p> <p>Model using Dienes/ PV counters to show the carrying into the next column</p> <p>Addition facts for decimals</p> <p>Introduce using Dienes:</p> <p>0.6 + 0.5 = 1.1</p> <p>Use Cuisenaire with decimal values to explore number</p> <p>Gain an understanding that to complete calculations such as 2742 + 1423 = You have to carry a thousand created by combining the hundreds</p>	<p>Adding numbers mentally –</p> <p>Select a mental strategy appropriate for the numbers in the calculation</p> <p>Calculate decimal complements to 10 or 100</p> <p>Instant recall</p> <p>Recall and use addition and subtraction facts for 1 (with decimals to two decimal places)</p> <p>Perform mental calculations including with mixed operations and large numbers and decimals</p> <p>Undertake mental calculations with increasingly large numbers and more complex calculations.</p> <p>Doubles of hundredths to 0.09 and corresponding halves</p> <p>Addition facts for hundredths up to 0.09 e.g. 0.07 + 0.09 = 0.16</p>

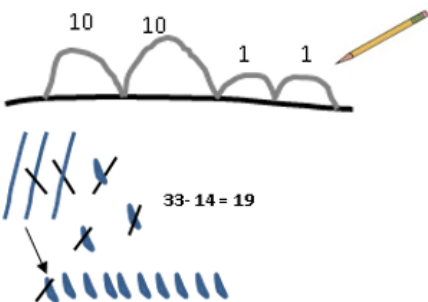

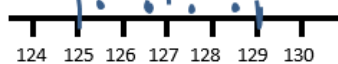


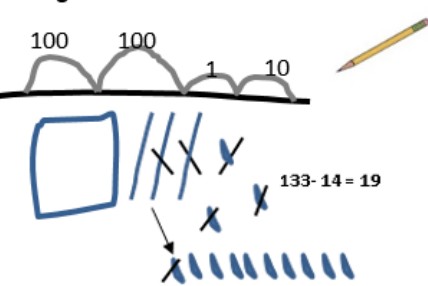
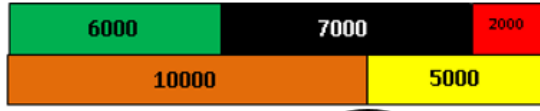
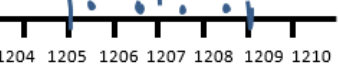
Mathematics – Calculation Progression (Subtraction)

Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
<p>Year 1</p> <p>Understand subtraction as 'taking away' objects from a set and finding how many are left</p> <p>National Curriculum</p> <ul style="list-style-type: none"> Read, write and interpret mathematical statements involving subtraction (-) and equals (=) signs Represent and use number bonds and related subtraction facts within 20 Add and subtract one-digit and two-digit numbers to 20, including zero (<i>using concrete objects and pictorial representations</i>) <p>Pupils should memorise and reason with number bonds to 10 and 20 in several forms (e.g. $9 + 7 = 16$; $16 - 7 = 9$; $7 = 16 - 9$). They should realise the effect of adding or subtracting zero. This establishes addition and subtraction as related operations.</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$</p> <p>They discuss and solve problems in familiar practical contexts, including using quantities. Problems should include the terms put together, add, altogether, total, take away, difference between, more than and less than so that pupils develop the concept of addition and subtraction and are enabled to use these operations flexibly.</p> <p>Can separate a group of three or four objects in different ways beginning to recognise that the total is still the same</p> <p>Can say how many more and how many less when comparing two sets of objects or two structured apparatus</p> <p>Can demonstrate awareness that numbers can be split to make smaller ones</p>	<p>Jottings -</p>  <p>Record their work with objects, pictures or diagrams</p> <p>Include zero</p> <p>$4 - 3 = 1$ $14 - 10 = 4$</p> <p>3 forms –</p> <p>$13 + 7 = 20$ $20 - 7 = 13$ $20 - 13 = 7$</p> <p>Number stories –</p> <p>Use familiar and creative situations</p> <p>Understand that the first number in the calculation is the larger amount from which the second number is taken</p> 	<p>Use of manipulatives -</p>  <p>Withdraw from the set</p> <p>Know hidden number</p> <p>Numicon with pegs</p> <p>Snap off cubes</p> <p>Multi-link towers</p> <p>See the number as one set partitioned</p> <p>For example: See 9 as 5 and 4</p> <p>Use Cuisenaire to compare numbers. Withdraw numbers</p> <p>Fold down fingers. Shake fist (that contains pretend counters) take away 3 (fold down 3 fingers)</p> <p>Paper and pencil cross off to subtract</p>	<p>Subitising regular dot cards to build visual image</p>  <p>Subtract dots in their heads</p> <p>Pupils should memorise and reason with number bonds to 10 and 20 in several forms (e.g. $9 + 7 = 16$; $16 - 7 = 9$; $7 = 16 - 9$). They should realise the effect of adding or subtracting zero. This establishes addition and subtraction as related operations.</p> <p>Instant recall</p> <p>Number bonds to 10 and 20</p> <p>Halves of even numbers to 10</p> <p>Know 'one less' than numbers to 20</p> <p>Can find the answer to a subtraction problem by counting out and taking away</p> <p>Can find out how many have been removed from a set by counting up</p> <p>Can work out by counting up or using structured apparatus how many more are needed to make a larger number</p>

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<p>Year 2</p> <p>National Curriculum Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting) Select a mental strategy appropriate for the numbers involved in the calculation</p> <p>Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot</p> <p>Understand subtraction as take away and difference (how many more, how many less/fewer)</p> <p>Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones, a two-digit number and tens, two two-digit numbers, adding three one-digit numbers. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems</p> <p>Solve problems with addition and subtraction including with missing numbers;</p> <p>- using concrete objects and pictorial representations, including those involving numbers, quantities and measures, applying their increasing knowledge of mental and written methods.</p> <p>Pupils extend their understanding of the language of addition and subtraction to include sum and difference. Pupils practise addition and subtraction to 20 to become increasingly fluent in deriving facts such as using $3 + 7 = 10$; $10 - 7 = 3$ and $7 = 10 - 3$ to calculate $30 + 70 = 100$; $100 - 70 = 30$ and $70 = 100 - 30$. They check their calculations, including by adding to check subtraction and adding numbers in a different order to check addition (for example, $5 + 2 + 1 = 1 + 5 + 2 = 1 + 2 + 5$). This establishes commutativity and associativity of addition. Recording addition and subtraction in columns supports place value and prepares for formal written methods with larger numbers.</p>	<p>Jottings -</p>  <p>Dienes jottings without breaking into the ten. Numberline jottings.</p> <p>Horizontally and vertically set calculations with numbers up to 100 (ensure place value knowledge is sound up to 100)</p> <p>e.g: $23 - 3 = 20$ (use place value) $27 - 10 = 17$ (use ten less knowledge) $20 - 11 = 9$ (use bonds knowledge)</p> <p>Expanded:</p> <p>$40 \ 3 -$ Compact:</p> <p>$30 \ 2$ $43 -$</p> <p>$10 \ 1$ 32</p> <p>11</p> <p>Understand that the first number in the calculation is the larger amount from which the second number is taken</p> <p>Number stories –</p> <p>Use familiar and creative situations</p> 	<p>Use of manipulatives - Take away (for written methods)</p>  <p>Dienes withdraw from a set</p> <p>Numbered multi-link</p> <p>100 bead string subtract 10</p> <p>Arrow cards help the understanding of the expanded method of calculation</p> <p>Use Cuisenaire for the understanding of the inverse nature of addition and subtraction</p> <p>Use of manipulatives – Difference between (for mental methods)</p> <p>Use multi-link to explore what 'difference between' means</p> <p>Vertical then horizontal</p> <p>Difference between on a numberline</p> <p>Develop into a mental method</p> <p>Counting forwards and keeping track on fingers</p> <p>'How many more'</p> <p>e.g. $5 + \square = 9$</p> <p>Missing numbers:</p> <p>$10 - \square = 7$</p>	<p>Subitising –regular dot cards to build visual image</p>  <p>Count back</p> <p>$23 \ 24 \ 25 \ 26 \ 36$</p> <p>$26 \ 27 \ 36$ Compensating</p> <p>$27 \ 30 \ 32 \ 42$ Bridging</p> <p>Know to use difference between mentally when the numbers are close together</p> <p>Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100</p> <p>Recall and use number bonds for multiples of 5 totalling 60 (to support telling time to nearest 5 minutes)</p> <p>Instant recall</p> <p>Fluent use of facts to 20</p> <p>Derive facts to 100</p> <p>Halves of even numbers to 20</p> <p>Subtraction facts from 10</p> <p>Subtract 10 from any number to 100</p>

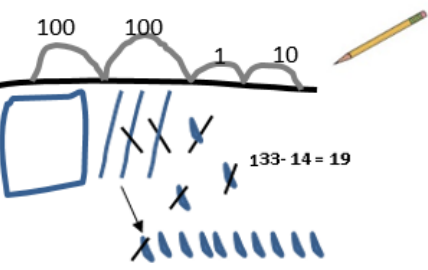

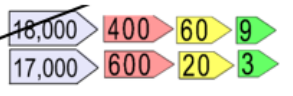
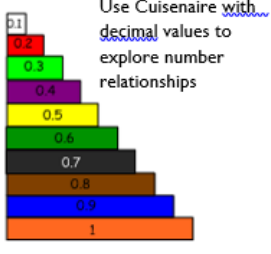


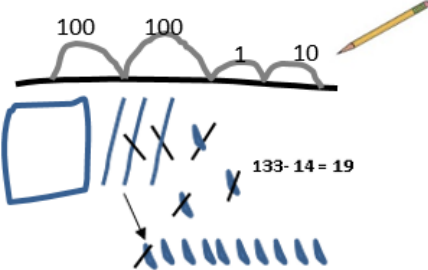

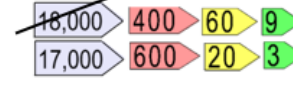
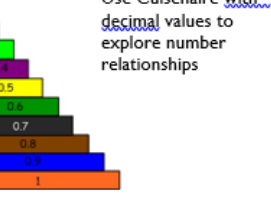
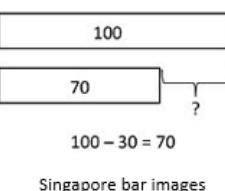
Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
Year 3- National Curriculum <i>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</i> <i>Select a mental strategy appropriate for the numbers involved in the calculation</i> <i>Understand and use take away and difference for subtraction, deciding on the most efficient method for the numbers involved, irrespective of context</i> Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds. Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction Estimate the answer to a calculation and use inverse operations to check answers Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction Guidance Pupils practise solving varied addition and subtraction questions. For mental calculations with two-digit numbers, the answers could exceed 100. Pupils use their understanding of place value and partitioning, and practise using columnar addition and subtraction with increasingly large numbers up to three digits to become fluent	Jottings –  Dienes jottings that break into the ten and the hundred Horizontal and vertically set calculations with numbers up to 1000 (ensure place value knowledge is sound up to 1000) $923 - 3 = 920$ (use place value) $227 - 10 = 217$ (use ten less knowledge) $520 - 11 = 509$ (use bonds knowledge) Column subtraction using two 3-digit numbers – breaking into tens and hundreds. Expanded: $200 \ 170$ $300 \ 70 \ 4 -$ $200 \ 80 \ 2$ $90 \ 2$ Compact: $2 \ 1$ $374 -$ 282 92 Steal and exchange Use familiar and creative situations Number stories –	Use of manipulatives – Take away - Dienes (place value manipulatives – break into the ten, break into a hundred (exchange)) Gain an understanding that to complete calculations such as $332 - 17 =$ You have to break into a ten, and for $332 - 77 =$ You have to break into a ten and a hundred Arrow cards to help understand the expanded method of calculation $500 \ 120$ $600 \ 20 \ 9$ $400 \ 60 \ 3$ Use numbered multi-link, place value counters to introduce larger numbers and to demonstrate how to break into tens and hundreds Progressions towards decomposition: $83 - 47 =$ Can you partition 83 so you can see 47 in it? Explore number relationships through cuisenaire 	Subtract numbers mentally - Calculate $163 - 21$ (using place value – take away – where there is no exchange required) Counting back or counting on Including using compensating or bridging where relevant – see year 2 but with numbers to 1000 Subtract decimals in the context of money where bridging not required <u>Counting on on a number line</u> for numbers close together e.g. $194 - 178$ Know to use difference between mentally when the numbers are close together  Add and subtract numbers mentally: $237 - 7 = 230$ (use place value) $322 - 100 = 222$ (use place value) $272 - 60 = 212$ (use ten less knowledge) $1220 - 500 = 720$ (use bonds knowledge) Instant recall Half of 1000, 500, 100, 90, 70, 50 and 30 Fluent use of subtraction facts to 100 Subtract 10 from any number to 1000 <i>Recall/use addition/subtraction facts for 100 (multiples of 5 and 10)</i> <i>Derive and use addition and subtraction facts for 100</i> <i>Derive and use addition and subtraction facts for multiples of 100 totalling 1000</i>

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Year 4- National Curriculum <ul style="list-style-type: none"> <i>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</i> Add and subtract numbers with up to 4 digits and decimals with one decimal place using the formal written methods of columnar addition and subtraction where appropriate Estimate; use inverse operations to check answers to a calculation Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why <i>Solve addition and subtraction problems involving missing numbers</i> Guidance Pupils continue to practise both mental methods and columnar addition and subtraction with increasingly large numbers to aid fluency	Jottings –  Dienes jottings that break into the ten and the hundred Horizontal and vertically set calculations with numbers up to 10000 (ensure place value knowledge is sound up to 10000) $1923 - 23 = 1900$ (use place value) $2227 - 10 = 2217$ (use ten less knowledge) $1520 - 11 = 1509$ (use bonds knowledge) Column subtraction using two 4-digit numbers – breaking into tens, hundreds and thousands Expanded: $5000 \ 1100 \ 170$ $6000 \ 200 \ 70 \ 4 -$ $4000 \ 300 \ 80 \ 2$ $1000 \ 800 \ 90 \ 2$ Steal and exchange Number stories – Use familiar and creative situations Compact: $8 \ 12 \ 1$ $932 - 457$ becomes $8 \ 9 \ 3 \ 2$ $4 \ 5 \ 7$ $4 \ 7 \ 5$ Answer: 475 <u>situations</u>	Use of manipulatives - Dienes – break into the thousand (exchange) $8000 \ 1400$ $8000 \ 400 \ 60 \ 9$ $2000 \ 600 \ 20 \ 3$ Place value pictures cross off Arrow cards to help understand the expanded method of calculation Use Cuisenaire with values of thousands to reinforce numbers up to 10,000 Progressions towards decomposition: $183 - 147 =$ Can you partition 183 so you can see 147 in it? Missing numbers up to 10,000 Gain an understanding that to complete calculations such as $4332 - 1710 =$ You have to break into a thousand 	Subtract numbers mentally - Calculate $1163 - 121$ (using place value – take away – where there is no exchange required) Counting back or counting on Including using compensating or bridging where relevant – see year 2 but with numbers to 10000 Subtract decimals in the context of money where bridging not required <u>Counting on on a number line</u> for numbers close together e.g. $1194 - 1178$ Know to use difference between mentally when the numbers are close together  KS1Instant recall <i>Select a mental strategy appropriate for the numbers involved in the calculation</i> <i>Recall and use addition and subtraction facts for 100</i> <i>Recall and use +/- facts for multiples of 100 totalling 1000</i> <i>Add and subtract mentally combinations of two and three digit numbers and decimals to one decimal place</i> <i>Derive and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place)</i> Half of 9, 7, 5 and 3 Halves of decimals to 1 decimal place for even tenths, e.g. half of 5.8



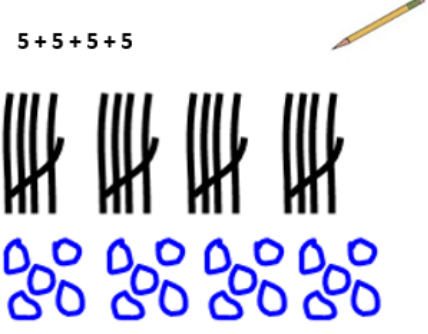
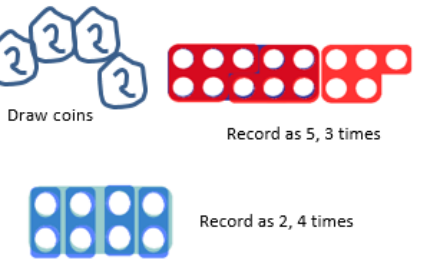
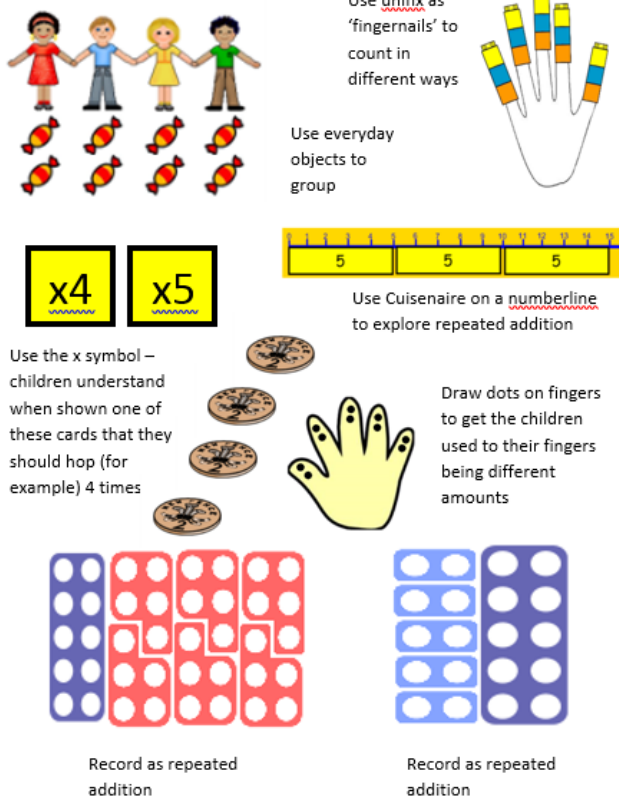
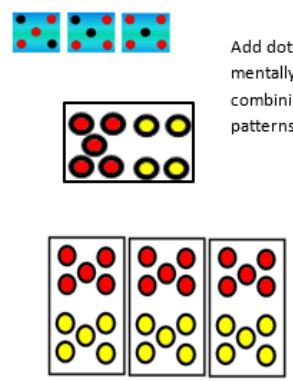
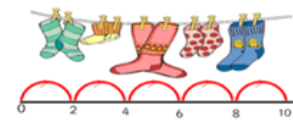


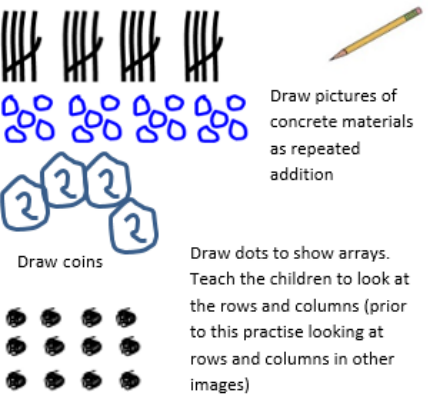
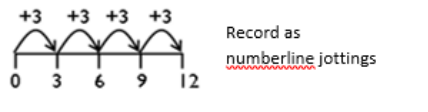
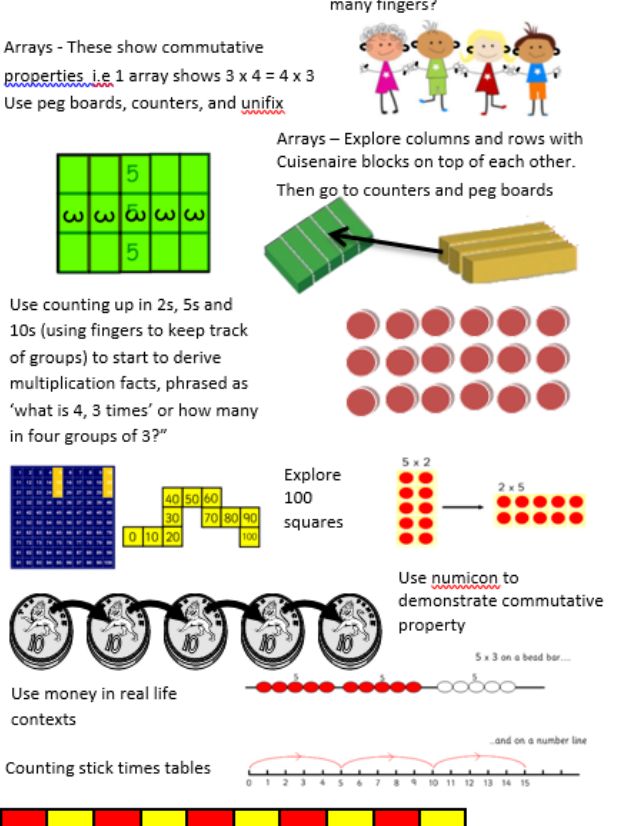
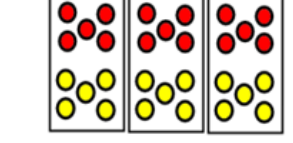
Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
<p>Year 5 -</p> <p>National Curriculum</p> <p><i>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</i></p> <p>Add and subtract whole numbers with more than 4 digits <i>and decimals with two decimal places</i>, including using formal written methods (columnar addition and subtraction)</p> <p>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</p> <p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</p> <p><i>Solve addition and subtraction problems involving missing numbers</i></p> <p>Guidance</p> <p>Pupils practise using the formal written methods of columnar addition and subtraction with increasingly large numbers to aid fluency.</p>	<p>Jottings -</p>  <p>Horizontal and vertically set calculations with numbers up to 100,000 (ensure place value knowledge is sound up to 100,000) e.g. $10,923 - 23 = 10,900$ (use place value) $11,227 - 100 = 11,127$ (use 100 less knowledge) $12,520 - 11 = 12,509$ (use bonds knowledge)</p> <p>Column subtraction using two 5-digit numbers</p> <p>Expanded: $16000 \quad 1400$ $17000 \quad 400 \quad 50 \quad 3 -$ $12000 \quad 700 \quad 20 \quad 2$ $4000 \quad 700 \quad 30 \quad 1$</p> <p>Answer: 4731</p> <p>Compact: $932 - 457$ becomes $\begin{array}{r} 8 \quad 12 \quad 1 \\ 9 \quad 3 \quad 2 \\ - 4 \quad 5 \quad 7 \\ \hline 4 \quad 7 \quad 5 \end{array}$</p> <p>Answer: 475</p> <p>Steal and exchange.</p> <p>Number stories -</p> <p>Use familiar and creative situations</p>	<p>Use of manipulatives -</p> <p>Use place value counters to demonstrate decimals and how you have to break into the next column to complete subtraction calculations</p> <p>Be aware of children who do not need place value counters – who are using mental methods and difference between</p>  <p>17,000 1400</p>  <p>Gain an understanding that to complete calculations such as $17,332 - 111,931 =$ You have to break into a thousand.</p>  <p>Use Cuisenaire with decimal values to explore number relationships</p>	<p>Subtract numbers mentally -</p> <p>Continue to use counting on/ counting back for all calculations that can and should be done mentally</p> <p>Mental calculations with increasingly large numbers to aid fluency</p> <p>For example, $12\,462 - 2300 = 10\,162$ (use place value)</p> <p>Compensating or bridging where relevant – see year 2 but with numbers to 10000</p> <p>Instant recall</p> <p><i>Select a mental strategy appropriate for the numbers involved in the calculation</i></p> <p><i>Recall and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place)</i></p> <p><i>Derive and use addition and subtraction facts for 1 (with decimal numbers to two decimal places)</i></p> <p>Add and subtract numbers mentally with increasingly large numbers <i>and decimals to two decimal places</i></p> <p>Know half of 9, 7, 5 and 3</p> <p>Halves of decimals to 1 decimal place for even tenths, e.g. half of 5.8</p> <p>Halves of decimals to 1 decimal place for odd tenths, e.g. half of 5.7</p>

Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
<p>Year 6 -</p> <p>National Curriculum</p> <p><i>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</i></p> <p>Add and subtract whole numbers and decimals using formal written methods (columnar addition and subtraction)</p> <p>Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</p> <p>Use knowledge of the order of operations to carry out calculations</p> <p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Solve problems involving all four operations, including those with missing numbers</p> <p>Guidance</p> <p>Pupils practise addition, subtraction for larger numbers, using the formal written methods of columnar addition and subtraction.</p> <p>Pupils round answers to a specified degree of accuracy, for example, to the nearest 10, 20, 50 etc., but not to a specified number of significant figures.</p> <p>Pupils explore the order of operations using brackets; for example, $2 + 1 \times 3 = 5$ and $(2 + 1) \times 3 = 9$. Common factors can be related to finding equivalent fractions.</p>	<p>Jottings -</p>  <p>Horizontal and vertically set calculations with numbers up to 100,000 (ensure place value knowledge is sound up to 100,000) e.g. $10,923 - 23 = 10,900$ (use place value) $11,227 - 100 = 11,127$ (use 100 less knowledge) $12,520 - 11 = 12,509$ (use bonds knowledge)</p> <p>Column subtraction using two 5-digit numbers</p> <p>Expanded: $16000 \quad 1400$ $17000 \quad 400 \quad 50 \quad 3 -$ $12000 \quad 700 \quad 20 \quad 2$ $4000 \quad 700 \quad 30 \quad 1$</p> <p>Answer: 4731</p> <p>Compact: $932 - 457$ becomes $\begin{array}{r} 8 \quad 12 \quad 1 \\ 9 \quad 3 \quad 2 \\ - 4 \quad 5 \quad 7 \\ \hline 4 \quad 7 \quad 5 \end{array}$</p> <p>Answer: 475</p> <p>Steal and exchange.</p> <p>Number stories -</p> <p>Use familiar and creative situations</p>	<p>Use of manipulatives -</p> <p>Use place value counters to demonstrate decimals and how you have to break into the next column to complete subtraction calculations</p> <p>Be aware of children who do not need place value counters – who are using mental methods and difference between</p>  <p>17,000 1400</p>  <p>Gain an understanding that to complete calculations such as $17,332 - 111,931 =$ You have to break into a thousand.</p>  <p>Use Cuisenaire with decimal values to explore number relationships</p>  <p>Singapore bar images</p>	<p>Subtract numbers mentally -</p> <p><i>Select a mental strategy appropriate for the numbers in the calculation</i></p> <p>Perform mental calculations including with mixed operations and large numbers <i>and decimals</i></p> <p>Undertake mental calculations with increasingly large numbers and more complex calculations.</p> <p>Continue to use counting on/ counting back for all calculations that can and should be done mentally</p> <p>$12\,462 - 2300 = 10\,162$ (use place value)</p> <p>Compensating or bridging where relevant – see year 2 but with numbers to 10000</p> <p>Instant recall</p> <p><i>Recall and use addition and subtraction facts for 1 (with decimals to two decimal places)</i></p> <p><i>Select a mental strategy appropriate for the numbers involved in the calculation</i></p> <p><i>Derive and use addition and subtraction facts for 1 (with decimal numbers to two decimal places)</i></p> <p>Add and subtract numbers mentally with increasingly large numbers <i>and decimals to two decimal places</i></p> <p>Know half of 9, 7, 5 and 3</p> <p>Halves of decimals to 1 decimal place for even tenths, e.g. half of 5.8</p> <p>Halves of decimals to 1 decimal place for odd tenths, e.g. half of 5.7</p>

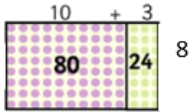
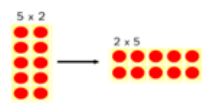
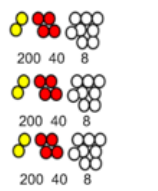
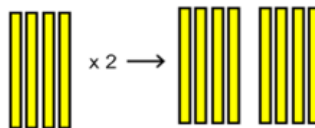




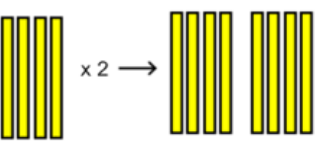
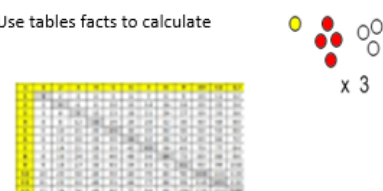
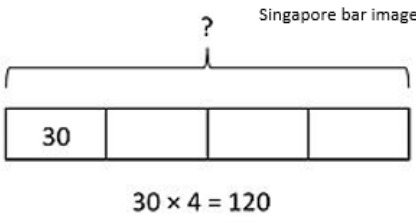
Mathematics – Calculation Progression (Multiplication)

Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
<p>Year 1-</p> <p>National Curriculum</p> <p>Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher</p> <p>Guidance</p> <p>Through grouping small quantities, pupils should begin to understand multiplication and division; doubling numbers and quantities, and finding simple fractions of objects, numbers and quantities.</p> <p>They should make connections between arrays, number patterns, and counting in twos, fives and tens.</p> <p>Practise counting in 2s, 5s and 10s, including using visual images for support</p> <p>Can use objects or structured apparatus to solve grouping problems</p> <p>Can use counting or structured apparatus to solve grouping problems such as 'How many cars can we make if we have 12 wheels?'</p> <p>Can use counting to solve repeated addition problems such as; how many shoes do we need for these three dolls?</p> <p>Can use repeated addition to solve simple multiplication problems</p> <p>Can count in 2's, 5's and 10's and keep track on their fingers to say how many groups have been counted.</p>	<p>Jottings –</p> <p>$5 + 5 + 5 + 5$</p>  <p>Drawn jottings which explore patterns of a repeated number. Draw concrete materials to gain a deeper understanding.</p> <p>$5 + 5 + 5 + 5 =$ Record as repeated addition</p> <p>$2 + 2 + 2 + 2 =$</p>  <p>Draw coins Record as 5, 3 times</p> <p>Record as 2, 4 times</p>	<p>Use of manipulatives -</p> <p>Use <u>unifix</u> as 'fingernails' to count in different ways</p>  <p>Use everyday objects to group</p> <p>Use Cuisenaire on a numberline to explore repeated addition</p> <p>Use the x symbol – children understand when shown one of these cards that they should hop (for example) 4 times</p> <p>Draw dots on fingers to get the children used to their fingers being different amounts</p> <p>Record as repeated addition</p> <p>Record as repeated addition</p>	<p>Subitising – regular dot cards to build visual image</p>  <p>Add dots mentally by combining patterns</p> <p>Explore patterns of a repeated number through dot patterns</p> <p>Multiply numbers mentally -</p> <p>Recall and use doubles of all numbers to 10 and corresponding halves</p> <p>Instant recall</p> <p>Doubles of numbers to 10</p> 

Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
<p>Year 2 -</p> <p>National Curriculum</p> <p><i>Understand multiplication as repeated addition</i></p> <p>Show that multiplication of two numbers can be done in any order (commutative)</p> <p>Calculate mathematical statements for multiplication <i>using repeated addition</i> and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs</p> <p>Solve problems involving multiplication and division <i>(including those with remainders)</i>, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts</p> <p>Guidance</p> <p>Pupils use a variety of language to describe multiplication and division.</p> <p>Pupils work with a range of materials and contexts in which multiplication and division relate to grouping and sharing discrete and continuous quantities, to arrays and to repeated addition. They begin to relate these to fractions and measures (for example, $40 \div 2 = 20$, 20 is a half of 40). They use commutativity and inverse relations to develop multiplicative reasoning (for example, $4 \times 5 = 20$ and $20 \div 5 = 4$).</p>	<p>Jottings –</p>  <p>Draw pictures of concrete materials as repeated addition</p> <p>Draw coins</p> <p>Draw dots to show arrays. Teach the children to look at the rows and columns (prior to this practise looking at rows and columns in other images)</p> <p>$5 + 5 + 5 + 5 =$ Record as repeated addition</p> <p>$2 + 2 + 2 + 2 =$</p> <p>$5 \times 4 =$ Record as horizontal calculations</p> <p>$2 \times 5 =$</p> <p>$\begin{array}{r} +3 \\ +3 \\ +3 \\ +3 \\ \hline 0 \end{array}$ Record as numberline jottings</p> 	<p>Use of manipulatives -</p> <p>How many ears are there? How many fingers?</p> <p>Arrays - These show commutative properties, i.e. 1 array shows $3 \times 4 = 4 \times 3$</p> <p>Use peg boards, counters, and <u>unifix</u></p> <p>Arrays – Explore columns and rows with Cuisenaire blocks on top of each other. Then go to counters and peg boards</p>  <p>Use counting up in 2s, 5s and 10s (using fingers to keep track of groups) to start to derive multiplication facts, phrased as 'what is 4, 3 times' or how many in four groups of 3?"</p> <p>Explore 100 squares</p> <p>Use <u>numicon</u> to demonstrate commutative property</p> <p>Use money in real life contexts</p> <p>Counting stick times tables</p> <p>Use <u>numicon</u> to demonstrate commutative property</p> <p>Use money in real life contexts</p> <p>Counting stick times tables</p>	<p>Explore patterns of a repeated number through dot patterns</p>  <p>Multiply numbers mentally –</p> <p>Use fingers of different amounts to calculate what 4×3 is for example</p> <p>Instant recall</p> <p>Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</p> <p><i>Derive and use doubles of simple two-digit numbers (numbers in which the ones total less than 10)</i></p> <p>Pupils are introduced to the multiplication tables. They practise to become fluent in the 2, 5 and 10 multiplication tables and connect them to each other. They connect the 10 multiplication table to place value, and the 5 multiplication table to the divisions on the clock face. They begin to use other multiplication tables and recall multiplication facts, including using related division facts to perform written and mental calculations.</p>

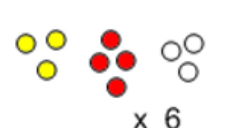


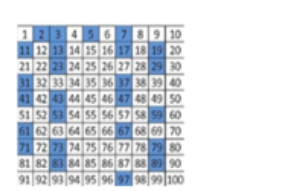
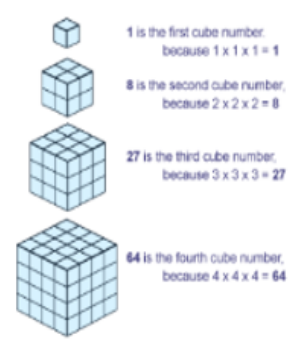




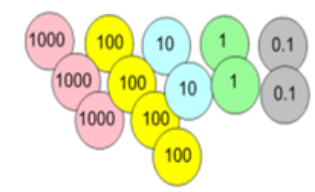

Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
<p>Year 3 -</p> <p>National Curriculum Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</p> <p>Understand that division is the inverse of multiplication and vice versa</p> <p>Understand how multiplication and division statements can be represented using arrays</p> <p>Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods</p> <p>Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</p> <p>Solve problems, including missing number problems, involving multiplication and division (and interpreting remainders), including positive integer scaling problems and correspondence problems in which n objects are connected to m objects</p> <p>Guidance</p> <p>Pupils develop reliable written methods for multiplication and division, starting with calculations of two-digit numbers by one-digit numbers and progressing to the formal written methods of short multiplication.</p> <p>Pupils solve simple problems in contexts, deciding which of the four operations to use and why. These include measuring and scaling contexts, (for example, four times as high, eight times as long etc.) and correspondence problems in which m objects are connected to n objects (for example, 3 hats and 4 coats, how many different outfits?;</p>	<p>Grid method of multiplication</p>  <p>Column Multiplication Expanded:</p> $\begin{array}{r} 103 \\ \times 8 \\ \hline 804 \end{array}$ <p>Compacted:</p> $\begin{array}{r} 103 \\ \times 8 \\ \hline 804 \end{array}$ <p>Short multiplication</p> <p>24 x 6 becomes</p> $\begin{array}{r} 24 \\ \times 6 \\ \hline 144 \end{array}$ <p>Answer: 144</p>	<p>Use of manipulatives -</p> <p>Use numicon to demonstrate commutative property</p>  <p>Use place value counters for repeated addition to</p>  <p>Use dienes to calculate how much a number would be so many times in larger numbers</p>  <p>Counting stick times tables</p> 	<p>Multiply numbers mentally –</p> <p>Pupils develop efficient mental methods, for example, using commutativity and associativity (for example, $4 \times 12 \times 5 = 4 \times 5 \times 12 = 20 \times 12 = 240$) and multiplication and division facts (for example, using $3 \times 2 = 6$, $6 \div 3 = 2$ and $2 = 6 \div 3$) to derive related facts (for example, $30 \times 2 = 60$, $60 \div 3 = 20$ and $20 = 60 \div 3$).</p> <p>Multiply a number by doubling and doubling again</p> <p>Multiply a 2 digit whole number by 10</p> <p>Place value calculations such as 70×3</p> <p>Instant recall</p> <p>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</p> <p>Derive and use doubles of all numbers to 100 and corresponding halves</p> <p>Derive and use doubles of all multiples of 50 to 500</p> <p>Pupils continue to practise their mental recall of multiplication tables when they are calculating mathematical statements in order to improve fluency. Through doubling, they connect the 2, 4 and 8 multiplication tables.</p> <p>Double 15, 25, 35, 45</p> <p>Mental recall of 2, 3, 4, 5, 8 and 10 times tables</p> <p>Begin to know times table facts for 6x, 7x, 8x and 9x</p> 

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<p>Year 4 -</p> <p>National Curriculum Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</p> <p>Multiply two-digit and three-digit numbers by a one-digit number using formal written layout</p> <p>Use estimation and inverse to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</p> <p>Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit</p> <p>Integer scaling problems and harder correspondence problems such as n objects are connected to m objects</p> <p>Guidance</p> <p>Pupils practise to become fluent in the formal written method of short multiplication.</p> <p>Pupils write statements about the equality of expressions (for example, use the distributive law $39 \times 7 = 30 \times 7 + 9 \times 7$ and associative law $(2 \times 3) \times 4 = 2 \times (3 \times 4)$).</p> <p>They combine their knowledge of number facts and rules of arithmetic to solve mental and written calculations for example, $2 \times 6 \times 5 = 10 \times 6 = 60$.</p> <p>Pupils solve two-step problems in contexts, choosing the appropriate operation, working with increasingly harder numbers. This should include correspondence questions such as the numbers of choices of a meal on a menu.</p>	<p>Column Multiplication Expanded:</p> $\begin{array}{r} 100303 \\ \times 3 \\ \hline 300909 \end{array}$ <p>Compacted:</p> $\begin{array}{r} 100303 \\ \times 3 \\ \hline 300909 \end{array}$ <p>Short multiplication</p> <p>24 x 6 becomes</p> $\begin{array}{r} 24 \\ \times 6 \\ \hline 144 \end{array}$ <p>Answer: 144</p> <p>Short multiplication</p> $\begin{array}{r} 153 \\ \times 4 \\ \hline 612 \end{array}$ <p>Answer: 612</p>	<p>Use of manipulatives -</p> <p>Use dienes to calculate how much a number would be so many times in larger numbers</p>  <p>Use tables facts to calculate</p>  <p>Singapore bar images</p> 	<p>Multiply numbers mentally –</p> <p>Use partitioning to double or halve any number, including decimals to one decimal place</p> <p>Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1, dividing by 1, multiplying together three numbers.</p> <p>Pupils practise mental methods and extend this to three-digit numbers to derive facts, (for example $600 \div 3 = 200$ can be derived from $2 \times 3 = 6$).</p> <p>Use place value to multiply a whole number by 10 or 100</p> <p>Multiply two multiples of 10 together, e.g. 40×30</p> <p>Times tables & PV calculations with decimals such as 0.7×3</p> <p>Instant recall</p> <p>Recognise and use factor pairs and commutativity in mental calculations</p> <p>Recall multiplication and division facts for multiplication tables up to 12×12</p> <p>Pupils continue to practise recalling and using multiplication tables and related division facts to aid fluency.</p>






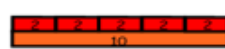

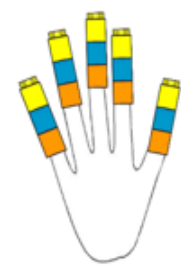

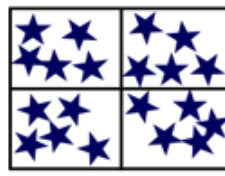





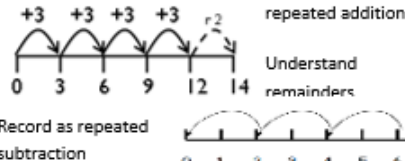
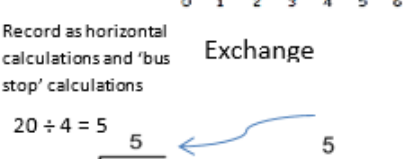
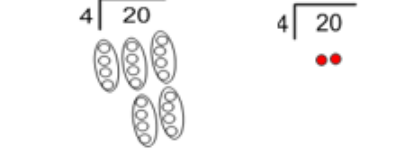

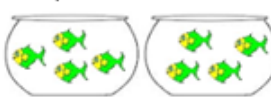


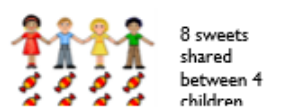

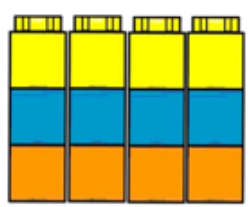
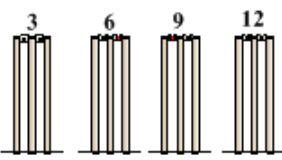


Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
<p>Year 5 -</p> <p>National Curriculum</p> <p>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method) Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. Establish whether a number up to 100 is prime and recall prime numbers up to 19. Recognise and use square (2) and cube (3) numbers, and notation. Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes. Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers. Use estimation/inverse to check answers to calculations; determine, in the context of a problem, an appropriate degree of accuracy. Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign. Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</p> <p>Guidance</p> <p>Pupils practise and extend their use of the formal written methods of short multiplication. They use and understand the terms factor, multiple and prime, square and cube numbers. Pupils use multiplication and division as inverses to support the introduction of ratio in year 6, for example, by multiplying and dividing by powers of 10 in scale drawings or by multiplying and dividing by powers of a 1000 in converting between units such as kilometres and metres. Distributivity can be expressed as $a(b + c) = ab + ac$. They understand the terms factor, multiple and prime, square and cube numbers and use them to construct equivalence statements (for example, $4 \times 35 = 2 \times 2 \times 35$; $3 \times 270 = 3 \times 3 \times 9 \times 10 = 9 \times 30$). Pupils use and explain the equals sign to indicate equivalence, including in missing number problems.</p>	<p>Column Multiplication Compact:</p> <p>Short multiplication</p> <p>24×6 becomes</p> $\begin{array}{r} 24 \\ \times 6 \\ \hline 144 \end{array}$ <p>Answer: 144</p> <p>342×7 becomes</p> $\begin{array}{r} 342 \\ \times 7 \\ \hline 2394 \end{array}$ <p>Answer: 2394</p> <p>2741×6 becomes</p> $\begin{array}{r} 2741 \\ \times 6 \\ \hline 16446 \end{array}$ <p>Answer: 16 446</p>	<p>Use of manipulatives –</p> <p>Use place value counters</p>  <p>Exploring square numbers</p>  <p>Scaling up sweet wrappers</p> 	<p>Multiply numbers mentally –</p> <p>Use partitioning to double or halve any number, including decimals to two decimal places</p> <p>Multiply and divide numbers mentally drawing upon known facts</p> <p>Instant recall</p> <p>They apply all the multiplication tables and related division facts frequently, commit them to memory and use them confidently to make larger calculations.</p>  <p>Know prime numbers</p> <p>Know cube numbers</p> 

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<p>Year 6 -</p> <p>National Curriculum</p> <p>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method) Identify common factors, common multiples and prime numbers. Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication. Multiply one-digit numbers with up to two decimal places by whole numbers. Use estimation and inverse to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. Use knowledge of the order of operations to carry out calculations. Solve problems involving all four operations, including those with missing numbers.</p> <p>Guidance</p> <p>Pupils practise addition, subtraction, multiplication and division for larger numbers, using the formal written methods of columnar addition and subtraction, short and long multiplication, and short and long division. Pupils round answers to a specified degree of accuracy, for example, to the nearest 10, 20, 50 etc., but not to a specified number of significant figures. Pupils explore the order of operations using brackets; for example, $2 + 1 \times 3 = 5$ and $(2 + 1) \times 3 = 9$. Common factors can be related to finding equivalent fractions.</p>	<p>Column Multiplication Compact:</p> <p>Long multiplication</p> <p>24×16 becomes</p> $\begin{array}{r} 24 \\ \times 16 \\ \hline 144 \\ 240 \\ \hline 384 \end{array}$ <p>Answer: 384</p> <p>124×26 becomes</p> $\begin{array}{r} 124 \\ \times 26 \\ \hline 744 \\ 2480 \\ \hline 3224 \end{array}$ <p>Answer: 3224</p> <p>Decimal example</p> $\begin{array}{r} 1.32 \\ \times 3 \\ \hline 3.96 \end{array}$ <p>Answer: 3.96</p>	<p>Use of manipulatives -</p>   <p>Use place value counters to demonstrate decimals</p> 	<p>Multiply numbers mentally –</p> <p>Use partitioning to double or halve any number</p> <p>Perform mental calculations, including with mixed operations and large numbers</p> <p>Instant recall</p> <p>They undertake mental calculations with increasingly large numbers and more complex calculations. Pupils continue to use all the multiplication tables to calculate mathematical statements in order to maintain their fluency.</p> 



Mathematics – Calculation Progression (Division)

Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
<p>Year 1-</p> <p>National Curriculum</p> <p>Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher</p> <p>Guidance</p> <p>Through grouping and sharing small quantities, pupils should begin to understand division; finding simple fractions of objects, numbers and quantities. They should make connections between number patterns.</p> <p>Can use counting to solve sharing problems such as 'Share 6 sweets between 3 children'</p> <p>Can use counting or structured apparatus to solve grouping problems such as 'Put these 24 eggs into these egg boxes...how many boxes do we need?'</p> <p>Can use counting to solve sharing problems such as Share 6 sweets between 3 children</p> <p>Can use counting or structured apparatus to solve grouping problems</p> <p>Practise grouping and sharing in realistic class contexts.</p>	<p>Jottings –</p> <p>Grouping: How many groups of two can I make out of 10?</p>  <p>Grouping: How many boxes will I need for these chocolates?</p>  <p>Sharing: If we share these 12 sweets to 6 children, how many would each child get?</p>  <p>Number stories –</p> <p>Use familiar and creative situations</p>	<p>Use of manipulatives -</p> <p>Use everyday objects to group and share</p> <p>10 grouped into two's</p>  <p>8p shared to 4 teddies</p>  <p>15 shared to 5 fingers</p>  <p>30 grouped into 5's</p>  <p>20 shared into 4 is 5 in each group</p> 	<p>Subitising regular dot cards to build visual image</p>  <p>Add dots mentally by combining patterns</p>  <p>Divide numbers mentally - Instant recall</p> <p>Recall and use doubles of all numbers to 10 and corresponding halves</p> <p>Halves of even numbers to 10</p>

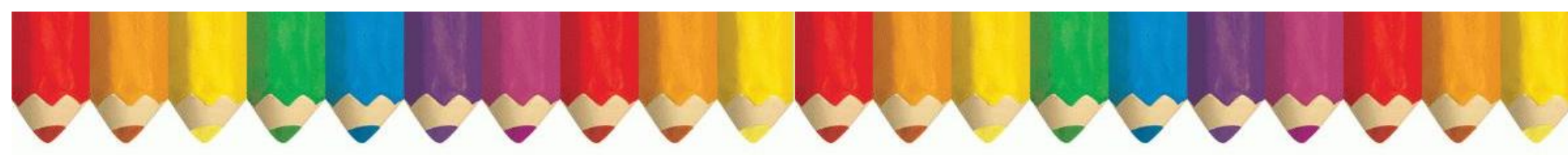
Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
<p>Year 2 -</p> <p>National Curriculum</p> <p>Understand division as sharing and grouping and that a division calculation can have a remainder</p> <p>Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot</p> <p>including recognising odd and even numbers</p> <p>Calculate mathematical statements for division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs</p> <p>Solve problems involving multiplication and division (including those with remainders), using materials, mental methods, and multiplication and division facts, including problems in contexts</p> <p>Guidance</p> <p>Pupils use a variety of language to describe multiplication and division. Pupils are introduced to the multiplication tables. They practise to become fluent in the 2, 5 and 10 multiplication tables and connect them to each other. They connect the 10 multiplication table to place value, and the 5 multiplication table to the divisions on the clock face. They begin to use other multiplication tables and recall multiplication facts, including using related division facts to perform written and mental calculations. Pupils work with a range of materials and contexts in which multiplication and division relate to grouping and sharing discrete and continuous quantities. They begin to relate these to fractions and measures (for example, $40 \div 2 = 20$, 20 is a half of 40). They use commutativity and inverse relations to develop multiplicative reasoning (for example, $4 \times 5 = 20$ and $20 \div 5 = 4$).</p>	<p>Jottings –</p> <p>Sharing: If we share these 12 sweets to 6 children, how many would each child get?</p>  <p>$14 \div 3 = 4 \text{ r } 2$</p> <p>Record as repeated addition</p>  <p>Record as repeated subtraction</p>  <p>Record as horizontal calculations and 'bus stop' calculations</p> <p>Exchange</p> 	<p>Use of manipulatives - Grouping leading to written method</p> <p>8 grouped into 2's</p>  <p>4 fish can live in 1 bowl. How many bowls do 8 fish need?</p>  <p>Use counting up in 2s, 5s and 10s (using fingers to keep track of groups) to start to derive division facts phrased as 'how many groups of 3 in 12?'</p>  <p>15 grouped into 5's</p> 	<p>Use of manipulatives – Sharing for mental method</p> <p>8 sweets shared between 4 children</p>  <p>12 eggs shared to 3 bowls</p>  <p>Cubes shared to make 4 towers</p>  <p>3 6 9 12</p>  <p>Subitising regular dot cards to build visual image</p>  <p>Add dots mentally by combining patterns</p>  <p>Divide numbers mentally –</p> <p>Know that when numbers are halved that is sharing to two people. Can use sharing mentally</p> <p>Instant recall</p> <p>Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables</p> <p>Derive and use halves of simple two-digit even numbers (numbers in which the tens are even)</p> <p>Halves of even numbers to 20, including recognising e.g. $14 \div 2$ as finding a half</p>


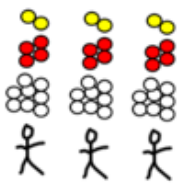



Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
<p>Year 3 -</p> <p>National Curriculum</p> <p>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</p> <p>Understand that division is the inverse of multiplication and vice versa. Understand how multiplication and division statements can be represented using arrays</p> <p>Understand division as sharing and grouping and use each appropriately</p> <p>Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods</p> <p>Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</p> <p>Solve problems, including missing number problems, involving multiplication and division (and interpreting remainders), including positive integer scaling problems and correspondence problems in which n objects are connected to m objects</p> <p>Guidance</p> <p>Pupils develop reliable written methods for division, starting with calculations of two-digit numbers by one-digit numbers and progressing to the formal written methods of short division. Pupils solve simple problems in contexts, deciding which of the four operations to use and why. Correspondence problems in which m objects are connected to n objects (for example, 3 hats and 4 coats, how many different outfits?; 12 sweets shared equally between 4 children; 4 cakes shared equally between 8 children).</p>	<p>Method leading to short division -</p> <p>Explore grouping three digit numbers</p> <p>Record as horizontal calculations and 'bus stop' calculations</p> <p>Explore place value counters to group numbers</p> <p>Exchange</p> <p>Exchange</p>	<p>Use of manipulatives -</p> <p>Use counting up in 2s, 5s and 10s (using fingers to keep track of groups) to start to derive division facts phrased as 'how many groups of 3 in 12?'</p> <p>15 grouped into 5's</p> <p>15 ÷ 5 = 3</p> <p>15 ÷ 3 = 5</p> <p>10 ÷ 5 = 2 18 ÷ 3 = 6</p> <p>10 ÷ 2 = 5 18 ÷ 6 = 3</p> <p>Understand relationships</p>	<p>Divide numbers mentally -</p> <p>Derive and use doubles of all numbers to 100 and corresponding halves</p> <p>Pupils develop efficient mental methods, for example, using commutativity and associativity (for example, $4 \times 12 \times 5 = 4 \times 5 \times 12 = 20 \times 12 = 240$) and multiplication and division facts (for example, using $3 \times 2 = 6$, $6 \div 3 = 2$ and $2 = 6 \div 3$) to derive related facts (for example, $30 \times 2 = 60$, $60 \div 3 = 20$ and $20 = 60 \div 3$).</p> <p>Use half and half again for ÷ 4</p> <p>Divide whole numbers by 10/100 (whole number answers)</p> <p>Calculate div facts with remainders for 2, 3, 4, 5 and 10 times tables</p> <p>Jottings to support mental chunking</p> <p>e.g. $2000 \div 250$</p> <p>Sharing continues as a mental method. Children are aware of both approaches</p> <p>Instant recall</p> <p>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</p> <p>Pupils continue to practise their mental recall of multiplication tables when they are calculating mathematical statements in order to improve fluency.</p> <p>Half of 30, 50, 70, 90</p>

Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
<p>Year 4 -</p> <p>National Curriculum</p> <p>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</p> <p>Divide numbers up to 3 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context</p> <p>Use estimation and inverse to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</p> <p>Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, division (including interpreting remainders), integer scaling problems and harder correspondence problems such as n objects are connected to m objects</p> <p>Guidance</p> <p>Pupils practise to become fluent in the formal written method of short multiplication and short division with exact answers</p> <p>Pupils write statements about the equality of expressions (for example, use the distributive law $39 \times 7 = 30 \times 7 + 9 \times 7$ and associative law $(2 \times 3) \times 4 = 2 \times (3 \times 4)$). They combine their knowledge of number facts and rules of arithmetic to solve mental and written calculations for example, $2 \times 6 \times 5 = 10 \times 6 = 60$.</p> <p>Pupils solve two-step problems in contexts, choosing the appropriate operation, working with increasingly harder numbers. This should include correspondence questions such as the numbers of choices of a meal on a menu, or three cakes shared equally between 10 children.</p>	<p>Method leading to short division - Explore Re-grouping and</p> <p>19 ÷ 4 = 4 r 3</p> <p>36 ÷ 4 = 8 r 4</p> <p>Exchange</p> <p>Exchange</p> <p>Short division</p> <p>98 ÷ 7 becomes</p> <p>Answer: 14</p> <p>432 ÷ 5 becomes</p> <p>Answer: 86 remainder 2</p>	<p>Use of manipulatives -</p> <p>Explore place value counters to group numbers</p> <p>36 ÷ 4 = 9</p> <p>Singapore bar images. Use times tables facts</p> <p>Use Cuisenaire with decimal values to explore number</p>	<p>Divide numbers mentally -</p> <p>Recognise and use factor pairs and commutativity in mental calculations</p> <p>Use partitioning to double or halve any number, including decimals to one decimal place</p> <p>Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1, dividing by 1, multiplying together three numbers</p> <p>Pupils practise mental methods and extend this to three-digit numbers to derive facts, (for example $600 \div 3 = 200$ can be derived from $2 \times 3 = 6$).</p> <p>Sharing continues as a mental method. Children are aware of both approaches</p> <p>Instant recall</p> <p>Recall multiplication and division facts for multiplication tables up to 12×12</p> <p>Pupils continue to practise recalling and using multiplication tables and related division facts to aid fluency.</p> <p>Half of 1, 3, 5, 7, 9</p> <p>Quickly derive division facts for times tables up to 10×10,</p> <p>Division facts with remainders for all times tables</p> <p>Division facts and place value calculations such as $180 \div 3$</p>





Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts				
<p>Year 5 -</p> <p>National Curriculum</p> <p><i>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</i></p> <p>Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers</p> <p><i>Use partitioning to double or halve any number, including decimals to two decimal places</i></p> <p>Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context</p> <p><i>Use estimation/inverse to check answers to calculations; determine, in the context of a problem, an appropriate degree of accuracy</i></p> <p>Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</p> <p>Guidance</p> <p>Pupils practise and extend their use of the formal written methods of short multiplication and short division.</p> <p>Pupils interpret non-integer answers to division by expressing results in different ways according to the context, including with remainders,</p>	<p>Short division -</p> <p>Short division</p> <p>$98 \div 7$ becomes</p> $\begin{array}{r} 14 \\ 7 \overline{) 98} \end{array}$ <p>Answer: 14</p> <p>$432 \div 5$ becomes</p> $\begin{array}{r} 86 \text{ r } 2 \\ 5 \overline{) 432} \end{array}$ <p>Answer: 86 remainder 2</p> <p>$496 \div 11$ becomes</p> $\begin{array}{r} 45 \text{ r } 1 \\ 11 \overline{) 496} \end{array}$ <p>Answer: $45 \frac{1}{11}$</p>	<p>Use of manipulatives -</p> <p>Use Cuisenaire with decimal values to explore number</p>  <p>Singapore bar images. Use times tables facts</p> <table border="1"> <tr> <td>9</td><td>9</td><td>9</td><td>9</td></tr> </table> <p>$36 \div 4 = 9$</p> <p>Use place value counters to explore sharing and grouping</p> 	9	9	9	9	<p>Divide numbers mentally -</p> <p>Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes</p> <p>Sharing continues as a mental method. Children are aware of both approaches</p> <p>Instant recall</p> <p>Multiply and divide numbers mentally drawing upon known facts</p> <p>They apply all the multiplication tables and related division facts frequently, commit them to memory and use them confidently to make larger calculation</p> <p>Multiply and divide decimals and whole numbers by 10, 100 and 1000</p> 
9	9	9	9				

Year and Notes	Children's Written Calculations	Models & Images	Mental Calculations/Known Facts
<p>Year 6 -</p> <p>National Curriculum</p> <p><i>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</i></p> <p>Identify common factors, common multiples and prime numbers</p> <p>Divide numbers up to 4 digits by a two-digit whole number using the formal written methods of short or long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context</p> <p>Use written division methods in cases where the answer has up to two decimal places</p> <p>Use estimation <i>and</i> inverse to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. Use knowledge of the order of operations to carry out calculations. Solve problems involving all four operations, <i>including those with missing numbers</i></p> <p>Guidance</p> <p>Pupils practise addition, subtraction, multiplication and division for larger numbers, using the formal written methods of columnar addition and subtraction, short and long multiplication, and short and long division.</p> <p>Pupils round answers to a specified degree of accuracy, for example, to the nearest 10, 20, 50 etc., but not to a specified number of significant figures.</p>	<p>Column Multiplication -</p> <p>Long division</p> <p>432 ÷ 15 becomes</p> $\begin{array}{r} 28 \text{ r } 12 \\ 15 \overline{) 432} \\ \underline{30 } \\ 132 \\ \underline{120} \\ 12 \end{array}$ <p>Answer: 28 remainder 12</p> <p>432 ÷ 15 becomes</p> $\begin{array}{r} 28 \\ 15 \overline{) 432} \\ \underline{30 } \\ 132 \\ \underline{120} \\ 12 \end{array}$ <p>Answer: $28 \frac{4}{5}$</p> <p>$\frac{32}{15} = \frac{4}{5}$</p> <p>Answer: $28 \frac{4}{5}$</p> <p>432 ÷ 15 becomes</p> $\begin{array}{r} 28 \cdot 8 \\ 15 \overline{) 432 \cdot 0} \\ \underline{30 } \downarrow \\ 132 \downarrow \\ \underline{120 } \downarrow \\ 120 \downarrow \\ \underline{120 } \\ 0 \end{array}$ <p>Answer: 28.8</p>	<p>Use of manipulatives -</p> <p>Use place value counters to explore sharing and grouping</p> <p>Use place value counters to demonstrate decimals</p> <p>Use related facts</p>	<p>Divide numbers mentally - Use partitioning to double or halve any number</p> <p>Perform mental calculations, including with mixed operations and large numbers</p> <p>They undertake mental calculations with increasingly large numbers and more complex calculations.</p> <p>Sharing continues as a mental method. Children are aware of both approaches</p> <p>Instant recall</p> <p>Pupils continue to use all the multiplication tables to calculate mathematical statements in order to maintain their fluency.</p>



Mathematics – Calculation Progression (Fractions)


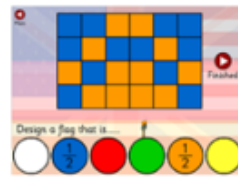


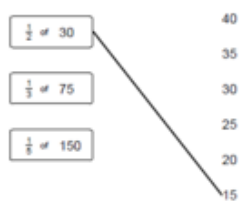

Year and Notes	Possible misconceptions	Best possible approaches and resources
<p>National Curriculum</p> <p>Year 1-</p> <ul style="list-style-type: none"> Understand that a fraction can describe part of a whole Understand that a unit fraction represents one equal part of a whole Recognise, find and name a half as one of two equal parts of an object shape or quantity (including measure) <p>Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity (including measure)</p> <p>Year 2-</p> <ul style="list-style-type: none"> Understand and use the terms numerator and denominator Understand that a fraction can describe part of a set Understand that the larger the denominator is, the more pieces it is split into and therefore the smaller each part will be Recognise, find, name and write fractions $\frac{1}{2}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ 	<p>That fractions is separate from other areas of maths and has no link to number/PV, division etc...</p> <p>Concept of 'equal parts' is often misunderstood</p> <p>Larger denominator = larger the fraction is - common misconception</p> <p>Indicated – coloured part is described in the fraction – often confused</p> <p>Finding quarters of numbers by cutting in half and half again – (mantra) tricky concept</p>	<p>'Real' practical experiences of cutting equal parts</p> <p>Divide into more than 4 equal parts</p> <p>Language</p> <p>Fractions in different images</p> <p>Equivalent fractions</p> <p>'Whole' 'Part' in terms of countries, Devon, School, Class</p> <p>Half and quarter</p> <p>Three quarters</p> <p>What do you see?</p> <p>Describe both colours in fractions. Both fractions describe the whole</p> <p>Find fractions of sets of objects</p> <p>Cut in half and half again</p> <p>$\frac{1}{4}$ of 16 = 4</p> <p>Cut paper and compare sizes</p> <p>3 is the numerator 4 is the denominator (think "d" for "down")</p> <p>http://www.sheppardsoftware.com/mathgames/fractions/Balloons_fractions1.htm</p> <p>http://www.sheppardsoftware.com/mathgames/fractions/memory_fractions1.htm</p>

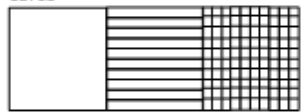
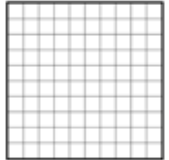


Year and Notes	Possible misconceptions	Best possible approaches and resources
<p>National Curriculum</p> <p>Year 3-</p> <ul style="list-style-type: none"> Show practically or pictorially that a fraction is one whole number divided by another (e.g. $\frac{3}{4}$ can be interpreted as $3 \div 4$) Understand that finding a fraction of an amount relates to division Recognise that tenths arise from dividing objects into 10 equal parts and in dividing one-digit numbers or quantities by 10 Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators Recognise and show, using diagrams, equivalent fractions with small denominators Add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$] Compare and order unit fractions, and fractions with the same denominators (including on a number line) Count on and back in steps of $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{3}$ <p>Solve problems that involve all of the above</p>		<p>Use sweets Use cakes with sweets on</p> <p>Pizza with pepperoni</p> <p>Use a bar of chocolate -bag of cubes to show that although its one object it's 12 pieces – $\frac{1}{4}$</p> <p>If $\frac{1}{4}$ is the whole, then $\frac{1}{8}$ is part of the whole</p> <p>Here is part of a number line. Write in the numbers missing from the two empty boxes</p> <p>Equal parts: Equal shape Equal area Equal amount</p> <p>3 is the numerator 4 is the denominator (think "d" for "down")</p> <p>Unit Fractions. Unit means one. Here are some examples of unit fractions.</p> <p>A unit fraction is one part of a whole that is divided into equal parts.</p> <p>Non-unit fractions. Unit means one, so non-unit is any number apart from one. Here are some examples of</p> <p>For addition: and for subtraction:</p> <p>Problems: 15 grapes are shared equally onto five plates. What fraction of the grapes is on each plate?</p> <p>1/4 of them are dog stickers 1/2 of them are cat stickers The rest are rabbit stickers</p> <p>How many rabbit stickers does she have?</p>







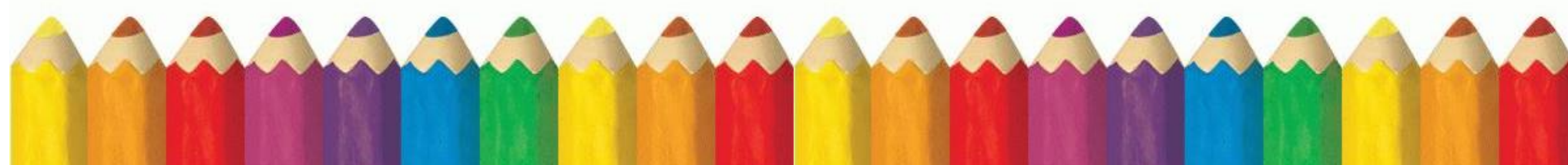
Year and Notes	Possible misconceptions	Best possible approaches and resources
National Curriculum Year 4- <ul style="list-style-type: none"> Understand that a fraction is one whole number divided by another (e.g. $\frac{3}{4}$ can be interpreted as $3 \div 4$) Recognise, find and write fractions of a discrete set of objects including those with a range of numerators and denominators Recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten Count on and back in steps of unit fractions Compare and order unit fractions and fractions with the same denominators (including on a number line) Recognise and show, using diagrams, families of common equivalent fractions Recognise and write decimal equivalents of any number of tenths or hundredths Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ Add and subtract fractions with the same denominator (using diagrams) Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number Solve simple measure and money problems involving fractions and decimals to two decimal places 	<p>Recognise that five tenths ($\frac{5}{10}$) or one half is shaded.</p>   <p>http://www.maths-games.org/fraction-games.html</p> <p>Recognise that two eighths ($\frac{2}{8}$) or one quarter ($\frac{1}{4}$) of the set of buttons is ringed</p> 	<p>Equal parts: Equal shape Equal area Equal amount</p>  <p>Match each box to the correct number. One has been done for you.</p>  <p>Recognise that one whole is equivalent to two halves, three thirds, four quarters... For example, build a fraction 'wall' using a computer program and then estimate parts.</p> <p>Recognise patterns in equivalent patterns, such as: $\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8} = \frac{5}{10} = \frac{6}{12} = \frac{7}{14}$ And similar patterns for $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{10}$.</p> <p>Here is a square.</p>  <p>What fraction of the square is shaded?</p> <p>add and subtract fractions with the same denominator For example: $\frac{1}{2} + \frac{1}{2}$, $\frac{1}{4} + \frac{3}{4}$, $\frac{3}{8} + \frac{5}{8}$, $\frac{3}{5} + \frac{4}{5} + \frac{1}{5}$, $\frac{7}{10} + \frac{3}{10} + \frac{5}{10} + \frac{8}{10}$, $\frac{3}{4} - \frac{1}{4}$, $\frac{6}{7} - \frac{4}{7}$, $\frac{9}{10} + \frac{4}{10}$, $-\frac{3}{10}$</p>

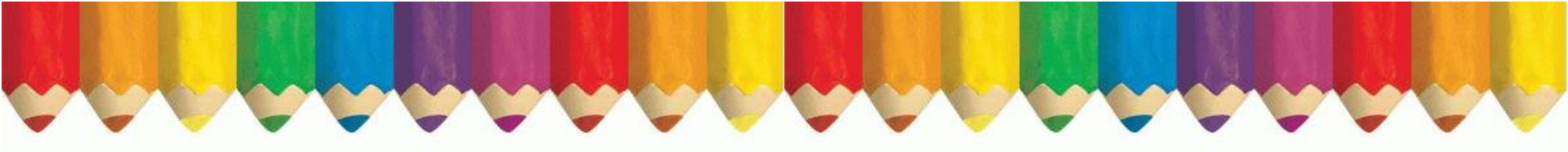
Year and Notes	Possible misconceptions	Best possible approaches and resources
National Curriculum Year 5- <ul style="list-style-type: none"> Recognise mixed numbers and improper fractions and convert from one form to the other Read and write decimal numbers as fractions (e.g. $0.71 = \frac{71}{100}$) Count on and back in mixed number steps such as $1\frac{1}{2}$ Compare and order fractions whose denominators are all multiples of the same number (including on a number line) Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents Add and subtract fractions with denominators that are the same and that are multiples of the same number (using diagrams) Write statements > 1 as a mixed number (e.g. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$) Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal Solve problems involving fractions and decimals to three places Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and fractions with a denominator of a multiple of 10 or 25 	<p>Turning round improper fractions</p> <p>Language of decimals doesn't link to fraction</p> <p>Larger denominator = larger fraction</p>	<p>Decimal cake imagery for relative value, PV charts, PV cards</p>  <p>Recognise that 0.007 is equivalent to $\frac{7}{1000}$ 6.305 is equivalent to $\frac{6305}{1000}$</p> <p>How many halves in: $1\frac{1}{2}$ $3\frac{1}{2}$ $9\frac{1}{2}$...? How many quarters in $1\frac{1}{4}$ $2\frac{1}{4}$ $5\frac{1}{4}$...?</p> <p>Multiply proper fractions and mixed numbers by whole numbers What is $\frac{3}{10}$ of: 50, 20, 100...? What is % of 50, 35, 100....?</p> <p>$1\frac{1}{7} = \frac{15}{7}$ Lots of visual Images, drawing and converting</p>  <p>Use blank hundred squares to model and explore percentages, tenths and hundredths. Decimals, fractions and percentages can be represented by colouring in blank hundred squares which children can use to support addition and subtraction.</p> <p>Children should be able to circle the two fractions that have the same value, or choose which one is the odd one out and justify their decision. $\frac{6}{10}$, $\frac{3}{5}$, $\frac{18}{20}$, $\frac{9}{15}$</p>





Year and Notes	Possible misconceptions	Best possible approaches and resources
National Curriculum Year 6- <ul style="list-style-type: none"> Compare and order fractions, including fractions > 1 (including on a number line) Use common factors to simplify fractions; use common multiples to express fractions in the same denomination Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375 and $\frac{3}{8}$) Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$) Divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$) Find simple percentages of amounts Solve problems involving fractions Solve problems which require answers to be rounded to specified degrees of accuracy Solve problems involving the calculation of percentages (e.g. of measures and such as 15% of 260) and the use of percentages for comparison 	<p>Multiplying produces a larger answer, but not in Fractions</p>	<p>Multiply simple pairs of proper fractions</p> <p>Why?</p> $\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$ <p>Investigate x What happens? Multiplication doesn't always make things bigger</p> <p>What is the fraction? What is a denominator?</p>  <p>Add fractions with different denominators</p> $\frac{2}{3} + \frac{2}{3}$ <p>This is easy isn't it?</p> $\frac{2}{3} + \frac{3}{4}$ <p>Use knowledge of equivalent fractions Find common denominators</p> $\frac{8}{12} + \frac{9}{12}$ <p>Will that always work? Actually what we've done is</p> $\frac{2}{3} + \frac{3}{4}$ <p>Inventing the method</p> <p>Children should be able to solve practical problems such as;</p>  $\frac{2}{3} - \frac{3}{4}$ <p>Inventing the method</p> <p>Here is a chocolate bar. William eats 3 pieces and Amber eats 2 pieces. What fraction of the chocolate bar remains?</p> <p>Joe has some pocket money. He spends three-quarters of it. He has fifty pence left. How much pocket money did he have?</p>





Maths Mastery





MATHS MASTERY



**ALL MATHS LESSONS WILL
DEVELOP:
KNOWLEDGE
SKILLS
UNDERSTANDING**

**ALL MATHS LESSONS WILL
INCLUDE ELEMENTS OF:
Fluency
Problem solving
Reasoning**

**MATHS MASTERY IS TEACHING THAT PROMOTES ACHIEVEMENT FOR
ALL PUPILS AND INCLUDES STRATEGIES USED IN THE CLASSROOM TO
ENSURE A SECURE UNDERSTANDING IS GAINED.**

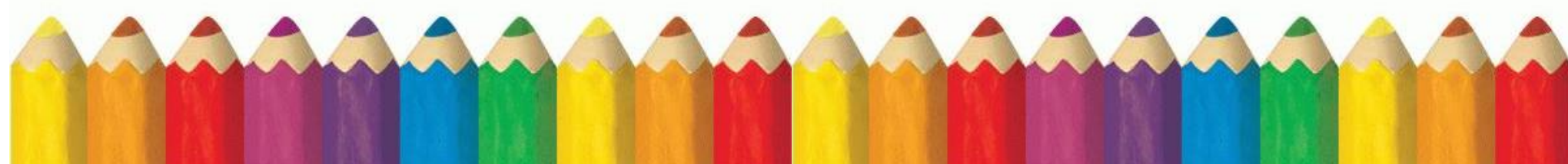
Features we will see in the classroom:

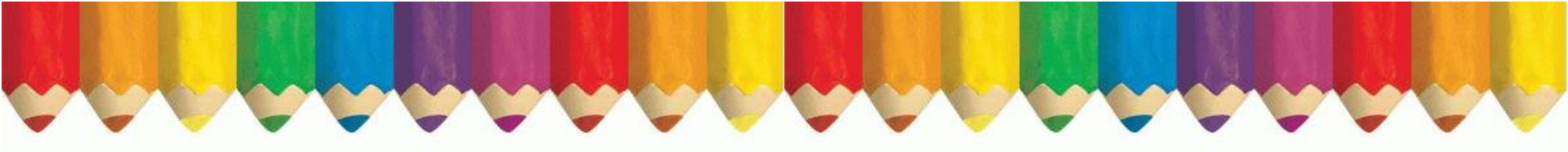
- All pupils learning the same concept
- Lesson design promotes indepth understanding
- Lesson design (differentiation) inc: support, resources and complexity
- Practice / consolidation makes pupils think (intelligent practice) - not just repetitive
- Questions promote reasoning and application
- Questioning checks understanding and procedural knowledge
- Speedy intervention



Other considerations:

Visual imagery
Pace may appear slower
Create opps to articulate reasoning





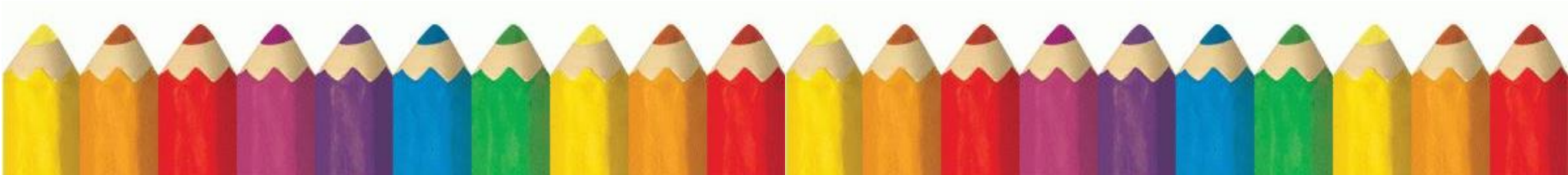
Mathematics – Early Years

The 2021 EYFS framework is structured very differently to the National Curriculum as it is organised across seven areas of learning rather than specific subject areas. The aim of this document is to help subject leaders to understand how the skills taught across the EYFS feed into National Curriculum subjects. The Early Learning Goals (ELG) should be used to support teachers to make a holistic, best-fit judgement about a child’s development, and their readiness for year 1. It is important to note that the ELG are not the Watcombe curriculum and do not limit teachers in their provision.

This document demonstrates which early years outcomes are prerequisite skills for Maths within the National Curriculum. Bellow you can find the most relevant ELG to Maths. Further recommendations on the pathways of children’s development in ages and stages are found from the 2021 Development matters which can be found https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1007446/6.7534_DfE_Development_Matters_Report_and_illustrations_web_2_.pdf

The most relevant ELG for Maths are taken from the area of Mathematics

Number ELG:	Have a deep understanding of number to 10, including the composition of each number; - Subitise (recognise quantities without counting) up to 5; - Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.
Numerical Patterns ELG:	Verbally count beyond 20, recognising the pattern of the counting system; - Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; - Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.





Mathematics – Year 1 Programme of Study

Year 1 programme of study

Number – number and place value

Statutory requirements

Pupils should be taught to:

- count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
- count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
- given a number, identify one more and one less
- identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
- read and write numbers from 1 to 20 in numerals and words.

Notes and guidance (non-statutory)

Pupils practise counting (1, 2, 3...), ordering (for example, first, second, third...), and to indicate a quantity (for example, 3 apples, 2 centimetres), including solving simple concrete problems, until they are fluent.

Pupils begin to recognise place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100, supported by objects and pictorial representations.

They practise counting as reciting numbers and counting as enumerating objects, and counting in twos, fives and tens from different multiples to develop their recognition of patterns in the number system (for example, odd and even numbers), including varied and frequent practice through increasingly complex questions.

They recognise and create repeating patterns with objects and with shapes.

Number – multiplication and division

Statutory requirements

Pupils should be taught to:

- solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

Notes and guidance (non-statutory)

Through grouping and sharing small quantities, pupils begin to understand: multiplication and division; doubling numbers and quantities; and finding simple fractions of objects, numbers and quantities.

They make connections between arrays, number patterns, and counting in twos, fives and tens.

Number – fractions

Statutory requirements

Pupils should be taught to:

- recognise, find and name a half as one of two equal parts of an object, shape or quantity
- recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.

Notes and guidance (non-statutory)

Pupils are taught half and quarter as 'fractions of' discrete and continuous quantities by solving problems using shapes, objects and quantities. For example, they could recognise and find half a length, quantity, set of objects or shape. Pupils connect halves and quarters to the equal sharing and grouping of sets of objects and to measures, as well as recognising and combining halves and quarters as parts of a whole.

Geometry – properties of shapes

Statutory requirements

Pupils should be taught to:

- recognise and name common 2-D and 3-D shapes, including:
 - 2-D shapes [for example, rectangles (including squares), circles and triangles]
 - 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].

Notes and guidance (non-statutory)

Pupils handle common 2-D and 3-D shapes, naming these and related everyday objects fluently. They recognise these shapes in different orientations and sizes, and know that rectangles, triangles, cuboids and pyramids are not always similar to each other.

Number – addition and subtraction

Statutory requirements

Pupils should be taught to:

- read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20
- add and subtract one-digit and two-digit numbers to 20, including zero
- solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$.

Notes and guidance (non-statutory)

Pupils memorise and reason with number bonds to 10 and 20 in several forms (for example, $9 + 7 = 16$; $16 - 7 = 9$; $7 = 16 - 9$). They should realise the effect of adding or subtracting zero. This establishes addition and subtraction as related operations.

Pupils combine and increase numbers, counting forwards and backwards.

They discuss and solve problems in familiar practical contexts, including using quantities. Problems should include the terms: put together, add, altogether, total, take away, distance between, difference between, more than and less than, so that pupils develop the concept of addition and subtraction and are enabled to use these operations flexibly.

Measurement

Statutory requirements

Pupils should be taught to:

- compare, describe and solve practical problems for:
 - lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
 - mass/weight [for example, heavy/light, heavier than, lighter than]
 - capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]
 - time [for example, quicker, slower, earlier, later]
- measure and begin to record the following:
 - lengths and heights
 - mass/weight
 - capacity and volume
 - time (hours, minutes, seconds)
- recognise and know the value of different denominations of coins and notes
- sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]
- recognise and use language relating to dates, including days of the week, weeks, months and years
- tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.

Notes and guidance (non-statutory)

The pairs of terms: mass and weight, volume and capacity, are used interchangeably at this stage.

Pupils move from using and comparing different types of quantities and measures using non-standard units, including discrete (for example, counting) and continuous (for example, liquid) measurement, to using manageable common standard units.

In order to become familiar with standard measures, pupils begin to use measuring tools such as a ruler, weighing scales and containers.

Pupils use the language of time, including telling the time throughout the day, first using o'clock and then half past.

Geometry – position and direction

Statutory requirements

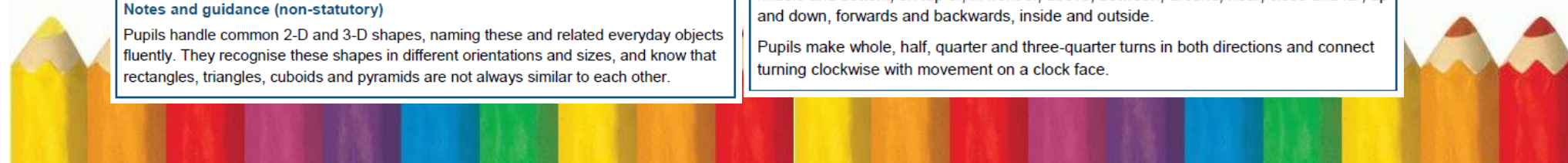
Pupils should be taught to:

- describe position, direction and movement, including whole, half, quarter and three-quarter turns.

Notes and guidance (non-statutory)

Pupils use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside.

Pupils make whole, half, quarter and three-quarter turns in both directions and connect turning clockwise with movement on a clock face.





Year 1 – Yearly Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value (within 10)				Number: Addition and Subtraction (within 10)				Geometry: Shape	Number: Place Value (within 20)		Consolidation
Spring	Number: Addition and Subtraction (within 20)				Number: Place Value (within 50) (Multiples of 2, 5 and 10 to be included)			Measurement: Length and Height		Measurement: Weight and Volume		Consolidation
Summer	Number: Multiplication and Division (Reinforce multiples of 2, 5 and 10 to be included)			Number: Fractions		Geometry: position and direction	Number: Place Value (within 100)		Measurement : money	Time		Consolidation

Year 1 – Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Number: Place Value Count to <u>ten</u> , forwards and backwards, beginning with 0 or 1, or from any given number. Count, read and write numbers to <u>10</u> in numerals and words. Given a number, identify one more or one less. Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least.				Number: Addition and Subtraction Represent and use number bonds and related subtraction facts <u>within 10</u> Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. Add and subtract one digit numbers <u>to 10</u> , including zero. Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems.				Geometry: Shape Recognise and name common 2-D shapes, including: (for example, rectangles (including squares), circles and triangles) Recognise and name common 3-D shapes, including: (for example, cuboids (including cubes), pyramids and spheres.)	Number: Place Value Count to <u>twenty</u> , forwards and backwards, beginning with 0 or 1, from any given number. Count, read and write numbers to <u>20</u> in numerals and words. Given a number, identify one more or one less. Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least.		Consolidation



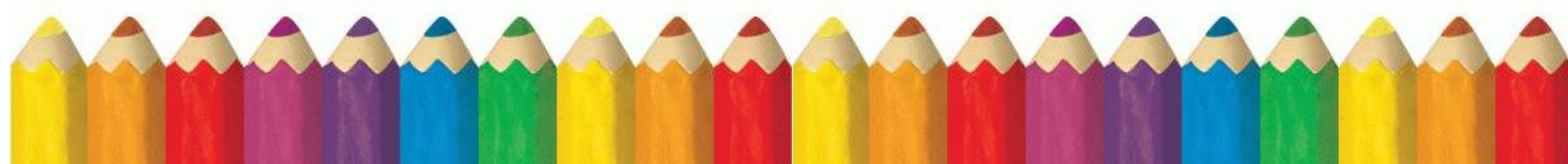


Year 1 – Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number: Addition and Subtraction</u> Represent and use number bonds and related subtraction facts within 20 Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. Add and subtract one-digit and two-digit numbers to 20, including zero. Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$				<u>Place Value</u> Count to <u>50</u> forwards and backwards, beginning with 0 or 1, or from any number. Count, read and write numbers to <u>50</u> in numerals. Given a number, identify one more or one less. Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least. <u>Count in multiples of twos, fives</u> and tens.			<u>Measurement: Length and Height</u> Measure and begin to record lengths and heights. <u>Compare, describe and solve practical problems for: lengths and heights (for example, long/short, longer/shorter, tall/short, double/half)</u>		<u>Measurement: Weight and Volume</u> Measure and begin to record mass/weight, capacity and volume. <u>Compare, describe and solve practical problems for mass/weight: [for example, heavy/light, heavier than, lighter than]; capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]</u>		Consolidation

Year 1 – Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number: Multiplication and Division</u> Count in multiples of twos, fives and tens. Solve one step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.			<u>Number: Fractions</u> Recognise, find and name a half as one of two equal parts of an object, shape or quantity. Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. <u>Compare, describe and solve practical problems for: lengths and heights (for example, long/short, longer/shorter, tall/short, double/half)</u> <u>Compare, describe and solve practical problems for: mass/weight (for example, heavy/light, heavier than, lighter than); capacity and volume (for example, full/empty, more than, less than, half, half full, quarter)</u>		<u>Geometry: position and direction</u> Describe position, direction and movement, including whole, half, quarter and three quarter turns	<u>Number: Place Value</u> Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. Count, read and write numbers to 100 in numerals. Given a number, identify one more and one less. Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than, most, least.		<u>Measurement: Money</u> Recognise and know the value of different denominations of coins and notes.	<u>Measurement: Time</u> Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening. Recognise and use language relating to dates, including days of the week, weeks, months and years. Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. Compare, describe and solve practical problems for time [for example, quicker, slower, earlier, later] Measure and begin to record time (hours, minutes, seconds)		
Consolidation											





Mathematics – Year 2 Programme of Study

Year 2 programme of study

Number – number and place value

Statutory requirements

Pupils should be taught to:

- count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward
- recognise the place value of each digit in a two-digit number (tens, ones)
- identify, represent and estimate numbers using different representations, including the number line
- compare and order numbers from 0 up to 100; use <, > and = signs
- read and write numbers to at least 100 in numerals and in words
- use place value and number facts to solve problems.

Notes and guidance (non-statutory)

Using materials and a range of representations, pupils practise counting, reading, writing and comparing numbers to at least 100 and solving a variety of related problems to develop fluency. They count in multiples of three to support their later understanding of a third.

As they become more confident with numbers up to 100, pupils are introduced to larger numbers to develop further their recognition of patterns within the number system and represent them in different ways, including spatial representations.

Pupils should partition numbers in different ways (for example, $23 = 20 + 3$ and $23 = 10 + 13$) to support subtraction. They become fluent and apply their knowledge of numbers to reason with, discuss and solve problems that emphasise the value of each digit in two-digit numbers. They begin to understand zero as a place holder.

Number – fractions

Statutory requirements

Pupils should be taught to:

- recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity
- write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.

Notes and guidance (non-statutory)

Pupils use fractions as 'fractions of' discrete and continuous quantities by solving problems using shapes, objects and quantities. They connect unit fractions to equal sharing and grouping, to numbers when they can be calculated, and to measures, finding fractions of lengths, quantities, sets of objects or shapes. They meet $\frac{3}{4}$ as the first example of a non-unit fraction.

Pupils should count in fractions up to 10, starting from any number and using the $\frac{1}{2}$ and $\frac{2}{4}$ equivalence on the number line (for example, $1\frac{1}{4}$, $1\frac{2}{4}$ (or $1\frac{1}{2}$), $1\frac{3}{4}$, 2). This reinforces the concept of fractions as numbers and that they can add up to more than one.

Geometry – position and direction

Statutory requirements

Pupils should be taught to:

- order and arrange combinations of mathematical objects in patterns and sequences
- use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).

Notes and guidance (non-statutory)

Pupils should work with patterns of shapes, including those in different orientations.

Pupils use the concept and language of angles to describe 'turn' by applying rotations, including in practical contexts (for example, pupils themselves moving in turns, giving instructions to other pupils to do so, and programming robots using instructions given in right angles).

Number – addition and subtraction

Statutory requirements

Pupils should be taught to:

- solve problems with addition and subtraction:
 - using concrete objects and pictorial representations, including those involving numbers, quantities and measures
 - applying their increasing knowledge of mental and written methods
- recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
- add and subtract numbers using concrete objects, pictorial representations, and mentally, including:
 - a two-digit number and ones
 - a two-digit number and tens
 - two two-digit numbers
 - adding three one-digit numbers
- show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
- recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

Notes and guidance (non-statutory)

Pupils extend their understanding of the language of addition and subtraction to include sum and difference.

Pupils practise addition and subtraction to 20 to become increasingly fluent in deriving facts such as using $3 + 7 = 10$; $10 - 7 = 3$ and $7 = 10 - 3$ to calculate $30 + 70 = 100$; $100 - 70 = 30$ and $70 = 100 - 30$. They check their calculations, including by adding to check subtraction and adding numbers in a different order to check addition (for example, $5 + 2 + 1 = 1 + 5 + 2 = 1 + 2 + 5$). This establishes commutativity and associativity of addition.

Recording addition and subtraction in columns supports place value and prepares for formal written methods with larger numbers.

Geometry – properties of shapes

Statutory requirements

Pupils should be taught to:

- identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line
- identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces
- identify 2-D shapes on the surface of 3-D shapes [for example, a circle on a cylinder and a triangle on a pyramid]
- compare and sort common 2-D and 3-D shapes and everyday objects.

Notes and guidance (non-statutory)

Pupils handle and name a wide variety of common 2-D and 3-D shapes including: quadrilaterals and polygons, and cuboids, prisms and cones, and identify the properties of each shape (for example, number of sides, number of faces). Pupils identify, compare and sort shapes on the basis of their properties and use vocabulary precisely, such as sides, edges, vertices and faces.

Pupils read and write names for shapes that are appropriate for their word reading and spelling.

Pupils draw lines and shapes using a straight edge.

Statistics

Statutory requirements

Pupils should be taught to:

- interpret and construct simple pictograms, tally charts, block diagrams and simple tables
- ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity
- ask and answer questions about totalling and comparing categorical data.

Notes and guidance (non-statutory)

Pupils record, interpret, collate, organise and compare information (for example, using many-to-one correspondence in pictograms with simple ratios 2, 5, 10).

Number – multiplication and division

Statutory requirements

Pupils should be taught to:

- recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
- calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs
- show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.

Notes and guidance (non-statutory)

Pupils use a variety of language to describe multiplication and division.

Pupils are introduced to the multiplication tables. They practise to become fluent in the 2, 5 and 10 multiplication tables and connect them to each other. They connect the 10 multiplication table to place value, and the 5 multiplication table to the divisions on the clock face. They begin to use other multiplication tables and recall multiplication facts, including using related division facts to perform written and mental calculations.

Pupils work with a range of materials and contexts in which multiplication and division relate to grouping and sharing discrete and continuous quantities, to arrays and to repeated addition. They begin to relate these to fractions and measures (for example, $40 \div 2 = 20$, 20 is a half of 40). They use commutativity and inverse relations to develop multiplicative reasoning (for example, $4 \times 5 = 20$ and $20 \div 5 = 4$).

Measurement

Statutory requirements

Pupils should be taught to:

- choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels
- compare and order lengths, mass, volume/capacity and record the results using >, < and =
- recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value
- find different combinations of coins that equal the same amounts of money
- solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
- compare and sequence intervals of time
- tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times
- know the number of minutes in an hour and the number of hours in a day.

Notes and guidance (non-statutory)

Pupils use standard units of measurement with increasing accuracy, using their knowledge of the number system. They use the appropriate language and record using standard abbreviations.

Comparing measures includes simple multiples such as 'half as high'; 'twice as wide'.

They become fluent in telling the time on analogue clocks and recording it.

Pupils become fluent in counting and recognising coins. They read and say amounts of money confidently and use the symbols £ and p accurately, recording pounds and pence separately.



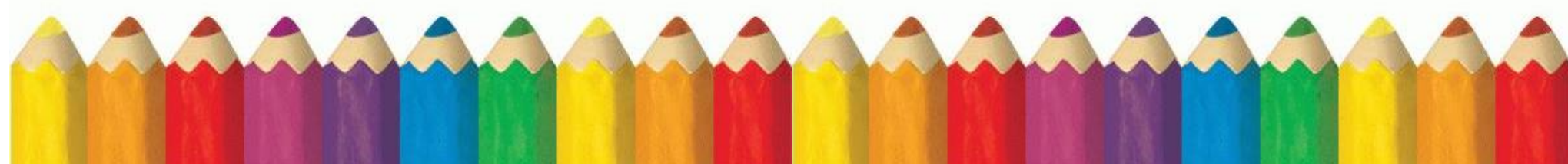


Year 2 – Yearly Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place value			Number: Addition and Subtraction					Measurement: Money		Number: <u>Multiplication</u> and Division	
Spring	Number: Multiplication and <u>Division</u>		Statistics		Geometry: Properties of Shape			Number: Fractions			Measurement: length and height	Consolidation
Summer	Position and direction			Problem solving and efficient methods		Measurement: Time		Measurement: Mass, Capacity and Temperature			Investigations	

Year 2 – Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Number – Place Value Read and write numbers to at least 100 in numerals and in words. Recognise the place value of each digit in a two digit number (tens, ones) Identify, represent and estimate numbers using different representations including the number line. Compare and order numbers from 0 up to 100; use <, > and = signs. Use place value and number facts to solve problems. Count in steps of 2, 3 and 5 from 0, and in tens from any number, forward and backward.			Number – Addition and Subtraction Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one-digit numbers. Show that the addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.					Measurement: Money Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. Find different combinations of coins that equal the same amounts of money. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.		Multiplication and Division Recall and use multiplication and division facts for the 2, 5 and 10 times tables, including recognising odd and even numbers. Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) sign. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts. Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.	





Year 2 – Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Multiplication and Division</u> Recall and use multiplication and division facts for the 2, 5 and 10 times tables, including recognising odd and even numbers. Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts. Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.		<u>Statistics</u> Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. Ask and answer questions about totalling and comparing categorical data.		<u>Geometry- properties of shape</u> Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces. Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid.] Compare and sort common 2-D and 3-D shapes and everyday objects.			<u>Number – fractions</u> Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity. Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.			<u>Measurement: length and height</u> Choose and use appropriate standard units to estimate and measure <u>length/height in any direction (m/cm)</u> ; mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, <u>using rulers, scales, thermometers and measuring vessels</u> <u>Compare and order lengths, mass, volume/capacity and record the results using >, < and =</u>	Consolidation

Year 2 – Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Position and Direction</u> Use mathematical vocabulary to describe position, direction and movement including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise). Order and arrange combinations of mathematical objects in patterns and sequences			Problem solving and Efficient methods.		<u>Measurement: Time</u> Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. Know the number of minutes in an hour and the number of hours in a day. Compare and sequence intervals of time.		<u>Measurement: Mass, Capacity and Temperature</u> <u>Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels</u> <u>Compare and order lengths, mass, volume/capacity and record the results using >, < and =</u>			Investigations	



Mathematics – Year 3 Programme of Study

Number – number and place value

Statutory requirements

Pupils should be taught to:

- count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number
- recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
- compare and order numbers up to 1000
- identify, represent and estimate numbers using different representations
- read and write numbers up to 1000 in numerals and in words
- solve number problems and practical problems involving these ideas.

Notes and guidance (non-statutory)

Pupils now use multiples of 2, 3, 4, 5, 8, 10, 50 and 100.

They use larger numbers to at least 1000, applying partitioning related to place value using varied and increasingly complex problems, building on work in year 2 (for example, $146 = 100 + 40$ and 6 , $146 = 130 + 16$).

Using a variety of representations, including those related to measure, pupils continue to count in ones, tens and hundreds, so that they become fluent in the order and place value of numbers to 1000.

Number – multiplication and division

Statutory requirements

Pupils should be taught to:

- recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
- write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods
- solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.

Notes and guidance (non-statutory)

Pupils continue to practise their mental recall of multiplication tables when they are calculating mathematical statements in order to improve fluency. Through doubling, they connect the 2, 4 and 8 multiplication tables.

Pupils develop efficient mental methods, for example, using commutativity and associativity (for example, $4 \times 12 \times 5 = 4 \times 5 \times 12 = 20 \times 12 = 240$) and multiplication and division facts (for example, using $3 \times 2 = 6$, $6 \div 3 = 2$ and $2 = 6 \div 3$) to derive related facts (for example, $30 \times 2 = 60$, $60 \div 3 = 20$ and $20 = 60 \div 3$).

Pupils develop reliable written methods for multiplication and division, starting with calculations of two-digit numbers by one-digit numbers and progressing to the formal written methods of short multiplication and division.

Pupils solve simple problems in contexts, deciding which of the four operations to use and why. These include measuring and scaling contexts, (for example, four times as high, eight times as long etc.) and correspondence problems in which m objects are connected to n objects (for example, 3 hats and 4 coats, how many different outfits?; 12 sweets shared equally between 4 children; 4 cakes shared equally between 8 children).

Measurement

Statutory requirements

Pupils should be taught to:

- measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
- measure the perimeter of simple 2-D shapes
- add and subtract amounts of money to give change, using both £ and p in practical contexts
- tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
- estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight
- know the number of seconds in a minute and the number of days in each month, year and leap year
- compare durations of events [for example to calculate the time taken by particular events or tasks].

Notes and guidance (non-statutory)

Pupils continue to measure using the appropriate tools and units, progressing to using a wider range of measures, including comparing and using mixed units (for example, 1 kg and 200g) and simple equivalents of mixed units (for example, 5m = 500cm).

The comparison of measures includes simple scaling by integers (for example, a given quantity or measure is twice as long or five times as high) and this connects to multiplication.

Pupils continue to become fluent in recognising the value of coins, by adding and subtracting amounts, including mixed units, and giving change using manageable amounts. They record £ and p separately. The decimal recording of money is introduced formally in year 4.

Pupils use both analogue and digital 12-hour clocks and record their times. In this way they become fluent in and prepared for using digital 24-hour clocks in year 4.

Number – addition and subtraction

Statutory requirements

Pupils should be taught to:

- add and subtract numbers mentally, including:
 - a three-digit number and ones
 - a three-digit number and tens
 - a three-digit number and hundreds
- add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction
- estimate the answer to a calculation and use inverse operations to check answers
- solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

Notes and guidance (non-statutory)

Pupils practise solving varied addition and subtraction questions. For mental calculations with two-digit numbers, the answers could exceed 100.

Pupils use their understanding of place value and partitioning, and practise using columnar addition and subtraction with increasingly large numbers up to three digits to become fluent (see [Mathematics Appendix 1](#)).

Number – fractions

Statutory requirements

Pupils should be taught to:

- count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10
- recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
- recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators
- recognise and show, using diagrams, equivalent fractions with small denominators
- add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$]
- compare and order unit fractions, and fractions with the same denominators
- solve problems that involve all of the above.

Notes and guidance (non-statutory)

Pupils connect tenths to place value, decimal measures and to division by 10.

They begin to understand unit and non-unit fractions as numbers on the number line, and deduce relations between them, such as size and equivalence. They should go beyond the $[0, 1]$ interval, including relating this to measure.

Pupils understand the relation between unit fractions as operators (fractions of), and division by integers.

They continue to recognise fractions in the context of parts of a whole, numbers, measurements, a shape, and unit fractions as a division of a quantity.

Pupils practise adding and subtracting fractions with the same denominator through a variety of increasingly complex problems to improve fluency.

Geometry – properties of shapes

Statutory requirements

Pupils should be taught to:

- draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them
- recognise angles as a property of shape or a description of a turn
- identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle
- identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

Notes and guidance (non-statutory)

Pupils' knowledge of the properties of shapes is extended at this stage to symmetrical and non-symmetrical polygons and polyhedra. Pupils extend their use of the properties of shapes. They should be able to describe the properties of 2-D and 3-D shapes using accurate language, including lengths of lines and acute and obtuse for angles greater or lesser than a right angle.

Pupils connect decimals and rounding to drawing and measuring straight lines in centimetres, in a variety of contexts.

Statistics

Statutory requirements

Pupils should be taught to:

- interpret and present data using bar charts, pictograms and tables
- solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.

Notes and guidance (non-statutory)

Pupils understand and use simple scales (for example, 2, 5, 10 units per cm) in pictograms and bar charts with increasing accuracy.

They continue to interpret data presented in many contexts.



Year 3 – Yearly Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number – Place Value			Number – Addition and Subtraction					Number – Multiplication and Division			Consolidation
Spring	Number - Multiplication and Division			Measurement: Money	Statistics		Measurement: length and perimeter			Number - Fractions		Consolidation
Summer	Number – fractions			Measurement: Time			Geometry – Properties of Shapes		Measurement: Mass and Capacity			Consolidation

Year 3 – Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Number – Place Value Identify, represent and estimate numbers using different representations. Find 10 or 100 more or less than a given number Recognise the place value of each digit in a three-digit number (hundreds, tens, ones). Compare and order numbers up to 1000 Read and write numbers up to 1000 in numerals and in words. Solve number problems and practical problems involving these ideas. <u>Count from 0 in multiples of 4, 8, 50 and 100</u>			Number – Addition and Subtraction Add and subtract numbers mentally, including: a three-digit number and ones; a three-digit number and tens; a three digit number and hundreds. Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. Estimate the answer to a calculation and use inverse operations to check answers. Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.					Number – Multiplication and Division <u>Count from 0 in multiples of 4, 8, 50 and 100</u> Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. <u>Write and calculate mathematical statements for multiplication and division using the multiplication tables they know,</u> including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objectives.			





Year 3 – Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number – multiplication and division</u> Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objectives.			<u>Measurement – money</u> Add and subtract amounts of money to give change, using both £ and p in practical contexts.	<u>Statistics</u> Interpret and present data using bar charts, pictograms and tables. Solve one-step and two-step questions [for example, ‘How many more?’ and ‘How many fewer?’] using information presented in scaled bar charts and pictograms and tables.		<u>Measurement – length and perimeter</u> <u>Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).</u> Measure the perimeter of simple 2D shapes.			<u>Number – fractions</u> Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. Solve problems that involve all of the above.		Consolidation

Year 3 – Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number – fractions</u> Recognise and show, using diagrams, equivalent fractions with small denominators. Compare and order unit fractions, and fractions with the same denominators. Add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$] Solve problems that involve all of the above.			<u>Measurement – time</u> Tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24-hour clocks. Estimate and read time with increasing accuracy to the nearest minute. Record and compare time in terms of seconds, minutes and hours. Use vocabulary such as o’clock, a.m./p.m., morning, afternoon, noon and midnight. Know the number of seconds in a minute and the number of days in each month, year and leap year. Compare durations of events [for example to calculate the time taken by particular events or tasks].			<u>Geometry – properties of shape</u> Recognise angles as a property of shape or a description of a turn. Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle. Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. Draw 2-D shapes and make 3-D shapes using modelling materials. Recognise 3-D shapes in different orientations and describe them.		<u>Measurement – mass and capacity</u> <u>Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).</u>			Consolidation



Number – addition and subtraction

Number – number and place value
Statutory requirements
Pupils should be taught to
<ul style="list-style-type: none">count in multiples of 6, 7, 9, 25 and 1000find 1000 more or less than a given numbercount backwards through zero to include negative numbersrecognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)order and compare numbers beyond 1000identify, represent and estimate numbers using different representationsround any number to the nearest 10, 100 or 1000solve number and practical problems that involve all of the above and with increasingly large positive numbersread Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.

Notes and guidance (non-statutory)

Using a variety of representations, including measures, pupils become fluent in the order and place value of numbers beyond 1000, including counting in tens and hundreds, and maintaining fluency in other multiples through varied and frequent practice.

They begin to extend their knowledge of the number system to include the decimal numbers and fractions that they have met so far.

They connect estimation and rounding numbers to the use of measuring instruments.

Roman numerals should be put in their historical context so pupils understand that there have been different ways to write whole numbers and that the important concepts of zero and place value were introduced over a period of time.

Number – multiplication and division
<p>Statutory requirements</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> recall multiplication and division facts for multiplication tables up to 12×12 use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers recognise and use factor pairs and commutativity in mental calculations multiply two-digit and three-digit numbers by a one-digit number using formal written layout solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.

Notes and guidance (non-statutory)

Pupils continue to practise recalling and using multiplication tables and related division facts to aid fluency.

Pupils practise mental methods and extend this to three-digit numbers to derive facts, (for example $600 \div 3 = 200$ can be derived from $2 \times 3 = 6$).

Pupils practise to become fluent in the formal written method of short multiplication and short division with exact answers (see [Mathematics Appendix 1](#)).

Pupils write statements about the equality of expressions (for example, use the distributive law $39 \times 7 = 30 \times 7 + 9 \times 7$ and associative law $(2 \times 3) \times 4 = 2 \times (3 \times 4)$). They combine their knowledge of number facts and rules of arithmetic to solve mental and written calculations for example, $2 \times 6 \times 5 = 10 \times 6 = 60$.

Pupils solve two-step problems in contexts, choosing the appropriate operation, working with increasingly harder numbers. This should include correspondence questions such as the numbers of choices of a meal on a menu, or three cakes shared equally between 10 children.

Measurement
<p>Statutory requirements</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> Convert between different units of measure [for example, kilometre to metre; hour to minute] measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres find the area of rectilinear shapes by counting squares estimate, compare and calculate different measures, including money in pounds and pence read, write and convert time between analogue and digital 12- and 24-hour clocks solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.

Notes and guidance (non-statutory)

Pupils build on their understanding of place value and decimal notation to record metric measures, including money.

They use multiplication to convert from larger to smaller units.

Perimeter can be expressed algebraically as $2(a + b)$ where a and b are the dimensions in the same unit.

They relate area to arrays and multiplication.

Statistics
Statutory requirements
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

Number – addition and subtraction
Statutory requirements
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate estimate and use inverse operations to check answers to a calculation solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

Notes and guidance (non-statutory)

Pupils continue to practise both mental methods and columnar addition and subtraction with increasingly large numbers to aid fluency (see [English Appendix 1](#)).

Number – fractions (including decimals)
<p>Statutory requirements</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> recognise and show, using diagrams, families of common equivalent fractions count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number add and subtract fractions with the same denominator recognise and write decimal equivalents of any number of tenths or hundredths recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths round decimals with one decimal place to the nearest whole number compare numbers with the same number of decimal places up to two decimal places solve simple measure and money problems involving fractions and decimals to two decimal places.

Notes and guidance (non-statutory)

Pupils should connect hundredths to tenths and place value and decimal measure.

They extend the use of the number line to connect fractions, numbers and measures.

Pupils understand the relation between non-unit fractions and multiplication and division of quantities, with particular emphasis on tenths and hundredths.

Pupils make connections between fractions of a length, of a shape and as a representation of one whole or set of quantities. Pupils use factors and multiples to recognise equivalent fractions and simplify where appropriate (for example, $\frac{6}{9} = \frac{2}{3}$ or $\frac{1}{4} = \frac{2}{8}$).

Pupils continue to practise adding and subtracting fractions with the same denominator, to become fluent through a variety of increasingly complex problems beyond one whole.

Pupils are taught throughout that decimals and fractions are different ways of expressing numbers and proportions.

Pupils' understanding of the number system and decimal place value is extended at this stage to tenths and then hundredths. This includes relating the decimal notation to division of whole number by 10 and later 100.

They practise counting using simple fractions and decimals, both forwards and backwards.

Pupils learn decimal notation and the language associated with it, including in the context of measurements. They make comparisons and order decimal amounts and quantities that are expressed to the same number of decimal places. They should be able to represent numbers with one or two decimal places in several ways, such as on number lines.

Geometry – properties of shapes

Statutory requirements
<p>Pupils should be taught to:</p> <ul style="list-style-type: none">▪ compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes▪ identify acute and obtuse angles and compare and order angles up to two right angles by size▪ identify lines of symmetry in 2-D shapes presented in different orientations▪ complete a simple symmetric figure with respect to a specific line of symmetry.

<p>Notes and guidance (non-statutory)</p> <p>Pupils continue to classify shapes using geometrical properties, extending to classifying different triangles (for example, isosceles, equilateral, scalene) and quadrilaterals (for example, parallelogram, rhombus, trapezium).</p> <p>Pupils compare and order angles in preparation for using a protractor and compare lengths and angles to decide if a polygon is regular or irregular.</p> <p>Pupils draw symmetric patterns using a variety of media to become familiar with different orientations of lines of symmetry; and recognise line symmetry in a variety of diagrams, including where the line of symmetry does not dissect the original shape.</p>

Geometry – position and direction
Statutory requirements
<p>Pupils should be taught to:</p> <ul style="list-style-type: none">describe positions on a 2-D grid as coordinates in the first quadrantdescribe movements between positions as translations of a given unit to the left/right and up/downplot specified points and draw sides to complete a given polygon.
Notes and guidance (non-statutory)
<p>Pupils draw a pair of axes in one quadrant, with equal scales and integer labels. They read, write and use pairs of coordinates, for example (2, 5), including using coordinate-plotting ICT tools.</p>





Year 4 – Yearly Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number – Place Value <small>Notes and guidance (non-statutory) Pupils understand and use a greater range of scales in their representations. Pupils begin to relate the graphical representation of data to recording change over time.</small>				- Addition and Subtraction			Measurement - Length and Perimeter	Number- Multiplication and Division			Consolidation
Spring	Number- Multiplication and Division			Measurement - Area	Fractions				Decimals			Consolidation
Summer	Decimals		Measurement- Money		Time	Statistics		Geometry- Properties of Shape		Geometry- Position and Direction	Consolidation	

Year 4 – Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Number – Place Value Count in multiples of 6, 7, 9, 25 and 1000. Find 1000 more or less than a given number. Recognise the place value of each digit in a four digit number (thousands, hundreds, tens and ones) Order and compare numbers beyond 1000 Identify, represent and estimate numbers using different representations. Round any number to the nearest 10, 100 or 1000 Solve number and practical problems that involve all of the above and with increasingly large positive numbers. Count backwards through zero to include negative numbers. Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.				Number- Addition and Subtraction Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. Estimate and use inverse operations to check answers to a calculation. Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why.			Measurement: Length and Perimeter Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres Convert between different units of measure [for example, kilometre to metre]	Number – Multiplication and Division Recall and use multiplication and division facts for multiplication tables up to 12 x 12. Count in multiples of 6, 7, 9, 25 and 1000 Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers. Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.			Consolidation





Year 4 – Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number – multiplication and division</u> Recall and use multiplication and division facts for multiplication tables up to 12×12 . Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers. Recognise and use factor pairs and commutativity in mental calculations. Multiply two digit and three digit numbers by a one digit number using formal written layout. Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.			<u>Measurement- Area</u> Find the area of rectilinear shapes by counting squares.	<u>Fractions</u> Recognise and show, using diagrams, families of common equivalent fractions. Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number. Add and subtract fractions with the same denominator.			<u>Decimals</u> Recognise and write decimal equivalents of any number of tenths or hundredths. Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths <u>Solve simple measure and money problems involving fractions and decimals to two decimal places.</u> Convert between different units of measure [for example, kilometre to metre]			Consolidation	

Year 4 – Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Decimals</u> Compare numbers with the same number of decimal places up to two decimal places. Round decimals with one decimal place to the nearest whole number. Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths		<u>Measurement- Money</u> Estimate, compare and calculate different measures, including money in pounds and pence. Solve simple measure and money problems involving fractions and decimals to two decimal places.		<u>Time</u> <u>Convert between different units of measure [for example, kilometre to metre; hour to minute]</u> Read, write and convert time between analogue and digital 12- and 24-hour clocks. Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.	<u>Statistics</u> Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.		<u>Geometry: Properties of shape</u> Identify acute and obtuse angles and compare and order angles up to two right angles by size. Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. Identify lines of symmetry in 2-D shapes presented in different orientations. Complete a simple symmetric figure with respect to a specific line of symmetry.		<u>Geometry- Position and Direction</u> Describe positions on a 2-D grid as coordinates in the first quadrant. Plot specified points and draw sides to complete a given polygon. Describe movements between positions as translations of a given unit to the left/ right and up/ down.		Consolidation



Mathematics - Year 5 Programme of Study

Year 5 programme of study

Number – number and place value

Statutory requirements

Pupils should be taught to:

- read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit
- count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000
- interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
- round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000
- solve number problems and practical problems that involve all of the above
- read Roman numerals to 1000 (M) and recognise years written in Roman numerals.

Notes and guidance (non-statutory)

Pupils identify the place value in large whole numbers.

They continue to use number in context, including measurement. Pupils extend and apply their understanding of the number system to the decimal numbers and fractions that they have met so far.

They should recognise and describe linear number sequences, including those involving fractions and decimals, and find the term-to-term rule.

They should recognise and describe linear number sequences (for example, 3, $3\frac{1}{2}$, 4, $4\frac{1}{2}$...), including those involving fractions and decimals, and find the term-to-term rule in words (for example, add $\frac{1}{2}$).

Number – multiplication and division

Statutory requirements

Pupils should be taught to:

- identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
- know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers
- establish whether a number up to 100 is prime and recall prime numbers up to 19
- multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers
- multiply and divide numbers mentally drawing upon known facts
- divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context
- multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
- recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)
- solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes
- solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
- solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.

Notes and guidance (non-statutory)

Pupils practise and extend their use of the formal written methods of short multiplication and short division (see [Mathematics Appendix 1](#)). They apply all the multiplication tables and related division facts frequently, commit them to memory and use them confidently to make larger calculations.

They use and understand the terms factor, multiple and prime, square and cube numbers.

Pupils interpret non-integer answers to division by expressing results in different ways according to the context, including with remainders, as fractions, as decimals or by rounding (for example, $98 \div 4 = \frac{98}{4} = 24 \text{ r } 2 = 24\frac{1}{2} = 24.5 \approx 25$).

Pupils use multiplication and division as inverses to support the introduction of ratio in year 6, for example, by multiplying and dividing by powers of 10 in scale drawings or by multiplying and dividing by powers of a 1000 in converting between units such as kilometres and metres.

Distributivity can be expressed as $a(b + c) = ab + ac$.

They understand the terms factor, multiple and prime, square and cube numbers and use them to construct equivalence statements (for example, $4 \times 35 = 2 \times 2 \times 35$; $3 \times 270 = 3 \times 3 \times 9 \times 10 = 9^2 \times 10$).

Pupils use and explain the equals sign to indicate equivalence, including in missing number problems (for example, $13 + 24 = 12 + 25$; $33 = 5 \times \square$).

Number – addition and subtraction

Statutory requirements

Pupils should be taught to:

- add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)
- add and subtract numbers mentally with increasingly large numbers
- use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
- solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

Notes and guidance (non-statutory)

Pupils practise using the formal written methods of columnar addition and subtraction with increasingly large numbers to aid fluency (see [Mathematics Appendix 1](#)).

They practise mental calculations with increasingly large numbers to aid fluency (for example, $12\,462 - 2300 = 10\,162$).

Number – fractions (including decimals and percentages)

Statutory requirements

Pupils should be taught to:

- compare and order fractions whose denominators are all multiples of the same number
- identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
- recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $\frac{2}{5} + \frac{1}{5} = \frac{6}{5} = 1\frac{1}{5}$]
- add and subtract fractions with the same denominator and denominators that are multiples of the same number
- multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
- read and write decimal numbers as fractions [for example, $0.71 = \frac{71}{100}$]
- recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
- round decimals with two decimal places to the nearest whole number and to one decimal place
- read, write, order and compare numbers with up to three decimal places
- solve problems involving number up to three decimal places
- recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal
- solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.

Notes and guidance (non-statutory)

Pupils should be taught throughout that percentages, decimals and fractions are different ways of expressing proportions.

They extend their knowledge of fractions to thousandths and connect to decimals and measures.

Notes and guidance (non-statutory)

Pupils connect equivalent fractions > 1 that simplify to integers with division and other fractions > 1 to division with remainders, using the number line and other models, and hence move from these to improper and mixed fractions.

Pupils connect multiplication by a fraction to using fractions as operators (fractions of), and to division, building on work from previous years. This relates to scaling by simple fractions, including fractions > 1 .

Pupils practise adding and subtracting fractions to become fluent through a variety of increasingly complex problems. They extend their understanding of adding and subtracting fractions to calculations that exceed 1 as a mixed number.

Pupils continue to practise counting forwards and backwards in simple fractions.

Pupils continue to develop their understanding of fractions as numbers, measures and operators by finding fractions of numbers and quantities.

Pupils extend counting from year 4, using decimals and fractions including bridging zero, for example on a number line.

Pupils say, read and write decimal fractions and related tenths, hundredths and thousandths accurately and are confident in checking the reasonableness of their answers to problems.

They mentally add and subtract tenths, and one-digit whole numbers and tenths.

They practise adding and subtracting decimals, including a mix of whole numbers and decimals, decimals with different numbers of decimal places, and complements of 1 (for example, $0.83 + 0.17 = 1$).

Pupils should go beyond the measurement and money models of decimals, for example, by solving puzzles involving decimals.

Pupils should make connections between percentages, fractions and decimals (for example, 100% represents a whole quantity and 1% is $\frac{1}{100}$, 50% is $\frac{50}{100}$, 25% is $\frac{25}{100}$) and relate this to finding 'fractions of'.

Measurement

Statutory requirements

Pupils should be taught to:

- convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)
- understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints
- measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
- calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes
- estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water]
- solve problems involving converting between units of time
- use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.

Notes and guidance (non-statutory)

Pupils use their knowledge of place value and multiplication and division to convert between standard units.

Pupils calculate the perimeter of rectangles and related composite shapes, including using the relations of perimeter or area to find unknown lengths. Missing measures questions such as these can be expressed algebraically, for example $4 + 2b = 20$ for a rectangle of sides 2 cm and b cm and perimeter of 20cm.

Pupils calculate the area from scale drawings using given measurements.

Pupils use all four operations in problems involving time and money, including conversions (for example, days to weeks, expressing the answer as weeks and days).

Geometry – properties of shapes

Statutory requirements

Pupils should be taught to:

- identify 3-D shapes, including cubes and other cuboids, from 2-D representations
- know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
- draw given angles, and measure them in degrees ($^\circ$)
- identify:
 - angles at a point and one whole turn (total 360°)
 - angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°)
 - other multiples of 90°
- use the properties of rectangles to deduce related facts and find missing lengths and angles
- distinguish between regular and irregular polygons based on reasoning about equal sides and angles.

Notes and guidance (non-statutory)

Pupils become accurate in drawing lines with a ruler to the nearest millimetre, and measuring with a protractor. They use conventional markings for parallel lines and right angles.

Pupils use the term diagonal and make conjectures about the angles formed between sides, and between diagonals and parallel sides, and other properties of quadrilaterals, for example using dynamic geometry ICT tools.

Pupils use angle sum facts and other properties to make deductions about missing angles and relate these to missing number problems.

Geometry – position and direction

Statutory requirements

Pupils should be taught to:

- identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.

Notes and guidance (non-statutory)

Pupils recognise and use reflection and translation in a variety of diagrams, including continuing to use a 2-D grid and coordinates in the first quadrant. Reflection should be in lines that are parallel to the axes.

Statistics

Statutory requirements

Pupils should be taught to:

- solve comparison, sum and difference problems using information presented in a line graph
- complete, read and interpret information in tables, including timetables.

Notes and guidance (non-statutory)

Pupils connect their work on coordinates and scales to their interpretation of time graphs.

They begin to decide which representations of data are most appropriate and why.



Year 5 – Yearly Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number – Place Value			Number – Addition and Subtraction		Statistics		Number – Multiplication and Division		Perimeter and Area		Consolidation
Spring	Number – Multiplication and Division			Number – Fractions						Number – Decimals & Percentages		Consolidation
Summer	Number – Decimals				Geometry- Properties of Shapes			Geometry- Position and Direction	Measurement- Converting Units		Measures Volume	Consolidation

Year 5 – Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number – Place Value</u> Read, write, order and compare numbers to at least 1000000 and determine the value of each digit. Count forwards or backwards in steps of powers of 10 for any given number up to 1000000. Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero. Round any number up to 1000000 to the nearest 10, 100, 1000, 10000 and 100000 Solve number problems and practical problems that involve all of the above. Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.			<u>Number- Addition and Subtraction</u> Add and subtract numbers mentally with increasingly large numbers. Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.		<u>Statistics</u> Solve comparison, sum and difference problems using information presented in a line graph. Complete, read and interpret information in tables including timetables.		<u>Number – multiplication and division</u> Multiply and divide numbers mentally drawing upon known facts. Multiply and divide whole numbers by 10, 100 and 1000. Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. Recognise and use square numbers and cube numbers and the notation for squared (2) and cubed (3) Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes. Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. Establish whether a number up to 100 is prime and recall prime numbers up to 19		<u>Perimeter and Area</u> Measure and calculate the perimeter of composite rectilinear shapes in cm and m. Calculate and compare the area of rectangles (including squares), and including using standard units, cm^2 , m^2 estimate the area of irregular shapes.		Consolidation



Year 5 – Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number – Multiplication and Division</u> Multiply and divide numbers mentally drawing upon known facts. Multiply numbers up to 4 digits by a one or two digit number using a formal written method, including long multiplication for 2 digit numbers. Divide numbers up to 4 digits by a one digit number using the formal written method of short division and interpret remainders appropriately for the context. Solve problems involving addition and subtraction, multiplication and division and a combination of these, including understanding the use of the equals sign.			<u>Number: Fractions</u> Compare and order fractions whose denominators are multiples of the same number. Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths. Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$] Add and subtract fractions with the same denominator and denominators that are multiples of the same number. Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. Read and write decimal numbers as fractions [for example $0.71 = \frac{71}{100}$] Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.						<u>Number: Decimals and Percentages</u> Read, write, order and compare numbers with up to three decimal places. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. Round decimals with two decimal places to the nearest whole number and to one decimal place. Solve problems involving number up to three decimal places. Recognise the per cent symbol (%) and understand that per cent relates to ‘number of parts per hundred’, and write percentages as a fraction with denominator 100, and as a decimal. Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.		Consolidation

Year 5 – Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number: Decimals</u> Solve problems involving number up to three decimal places. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.				<u>Geometry- Properties of Shapes and Angles</u> Identify 3D shapes, including cubes and other cuboids, from 2D representations. Use the properties of rectangles to deduce related facts and find missing lengths and angles. Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. Draw given angles, and measure them in degrees (°) Identify: angles at a point and one whole turn (total 360°), angles at a point on a straight line and ½ a turn (total 180°) other multiples of 90°			<u>Geometry- position and direction</u> Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.	<u>Measurement- converting units</u> Convert between different units of metric measure [for example, km and m; cm and m; cm and mm; g and kg; l and ml] Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. Solve problems involving converting between units of time.	<u>Measures Volume</u> Estimate volume [for example using 1cm³ blocks to build cuboids (including cubes)] and capacity [for example, using water] Use all four operations to solve problems involving measure.	Consolidation	



Mathematics - Year 6 Programme of Study

Number – number and place value	Number – fractions (including decimals and percentages)	Ratio and proportion
<p>Statutory requirements</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> read, write, order and compare numbers up to 10 000 000 and determine the value of each digit round any whole number to a required degree of accuracy use negative numbers in context, and calculate intervals across zero solve number and practical problems that involve all of the above. <p>Notes and guidance (non-statutory)</p> <p>Pupils use the whole number system, including saying, reading and writing numbers accurately.</p>	<p>Statutory requirements</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> use common factors to simplify fractions; use common multiples to express fractions in the same denomination compare and order fractions, including fractions > 1 add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$] divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$] associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$] multiply one-digit numbers with up to two decimal places by whole numbers use written division methods in cases where the answer has up to two decimal places solve problems which require answers to be rounded to specified degrees of accuracy recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. <p>Notes and guidance (non-statutory)</p> <p>Pupils should practise, use and understand the addition and subtraction of fractions with different denominators by identifying equivalent fractions with the same denominator. They should start with fractions where the denominator of one fraction is a multiple of the other (for example, $\frac{1}{2} + \frac{1}{8} = \frac{5}{8}$) and progress to varied and increasingly complex problems.</p> <p>Pupils should use a variety of images to support their understanding of multiplication with fractions. This follows earlier work about fractions as operators (fractions of), as numbers, and as equal parts of objects, for example as parts of a rectangle.</p> <p>Pupils use their understanding of the relationship between unit fractions and division to work backwards by multiplying a quantity that represents a unit fraction to find the whole quantity (for example, if $\frac{1}{4}$ of a length is 36cm, then the whole length is $36 \times 4 = 144\text{cm}$).</p> <p>They practise calculations with simple fractions and decimal fraction equivalents to aid fluency, including listing equivalent fractions to identify fractions with common denominators.</p> <p>Pupils can explore and make conjectures about converting a simple fraction to a decimal fraction (for example, $3 \div 8 = 0.375$). For simple fractions with recurring decimal equivalents, pupils learn about rounding the decimal to three decimal places, or other appropriate approximations depending on the context. Pupils multiply and divide numbers with up to two decimal places by one-digit and two-digit whole numbers. Pupils multiply decimals by whole numbers, starting with the simplest cases, such as $0.4 \times 2 = 0.8$, and in practical contexts, such as measures and money.</p> <p>Pupils are introduced to the division of decimal numbers by one-digit whole number, initially, in practical contexts involving measures and money. They recognise division calculations as the inverse of multiplication.</p> <p>Pupils also develop their skills of rounding and estimating as a means of predicting and checking the order of magnitude of their answers to decimal calculations. This includes rounding answers to a specified degree of accuracy and checking the reasonableness of their answers.</p>	<p>Statutory requirements</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison solve problems involving similar shapes where the scale factor is known or can be found solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. <p>Notes and guidance (non-statutory)</p> <p>Pupils recognise proportionality in contexts when the relations between quantities are in the same ratio (for example, similar shapes and recipes).</p> <p>Pupils link percentages or 360° to calculating angles of pie charts.</p> <p>Pupils should consolidate their understanding of ratio when comparing quantities, sizes and scale drawings by solving a variety of problems. They might use the notation $a:b$ to record their work.</p> <p>Pupils solve problems involving unequal quantities, for example, 'for every egg you need three spoonfuls of flour', '$\frac{3}{5}$ of the class are boys'. These problems are the foundation for later formal approaches to ratio and proportion.</p>
Number – addition, subtraction, multiplication and division	Algebra	Measurement
<p>Statutory requirements</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context perform mental calculations, including with mixed operations and large numbers identify common factors, common multiples and prime numbers use their knowledge of the order of operations to carry out calculations involving the four operations solve problems involving addition, subtraction, multiplication and division use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. <p>Notes and guidance (non-statutory)</p> <p>Pupils practise addition, subtraction, multiplication and division for larger numbers, using the formal written methods of columnar addition and subtraction, short and long multiplication, and short and long division (see Mathematics Appendix 1).</p> <p>They undertake mental calculations with increasingly large numbers and more complex calculations.</p> <p>Pupils continue to use all the multiplication tables to calculate mathematical statements in order to maintain their fluency.</p> <p>Pupils round answers to a specified degree of accuracy, for example, to the nearest 10, 20, 50 etc., but not to a specified number of significant figures.</p> <p>Pupils explore the order of operations using brackets; for example, $2 + 1 \times 3 = 5$ and $(2 + 1) \times 3 = 9$.</p> <p>Common factors can be related to finding equivalent fractions.</p>	<p>Statutory requirements</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> use simple formulae generate and describe linear number sequences express missing number problems algebraically find pairs of numbers that satisfy an equation with two unknowns enumerate possibilities of combinations of two variables. <p>Notes and guidance (non-statutory)</p> <p>Pupils should be introduced to the use of symbols and letters to represent variables and unknowns in mathematical situations that they already understand, such as:</p> <ul style="list-style-type: none"> missing numbers, lengths, coordinates and angles formulae in mathematics and science equivalent expressions (for example, $a + b = b + a$) generalisations of number patterns number puzzles (for example, what two numbers can add up to). 	<p>Statutory requirements</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places convert between miles and kilometres recognise that shapes with the same areas can have different perimeters and vice versa recognise when it is possible to use formulae for area and volume of shapes calculate the area of parallelograms and triangles calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3]. <p>Notes and guidance (non-statutory)</p> <p>Pupils connect conversion (for example, from kilometres to miles) to a graphical representation as preparation for understanding linear/proportional graphs.</p> <p>They know approximate conversions and are able to tell if an answer is sensible.</p> <p>Using the number line, pupils use, add and subtract positive and negative integers for measures such as temperature.</p> <p>They relate the area of rectangles to parallelograms and triangles, for example, by dissection, and calculate their areas, understanding and using the formulae (in words or symbols) to do this.</p> <p>Pupils could be introduced to compound units for speed, such as miles per hour, and apply their knowledge in science or other subjects as appropriate.</p>
Geometry – properties of shapes	Geometry – position and direction	Statistics
<p>Statutory requirements</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> draw 2-D shapes using given dimensions and angles recognise, describe and build simple 3-D shapes, including making nets compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. <p>Notes and guidance (non-statutory)</p> <p>Pupils draw shapes and nets accurately, using measuring tools and conventional markings and labels for lines and angles.</p> <p>Pupils describe the properties of shapes and explain how unknown angles and lengths can be derived from known measurements.</p> <p>These relationships might be expressed algebraically for example, $d = 2 \times r$, $a = 180 - (b + c)$.</p>	<p>Statutory requirements</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> describe positions on the full coordinate grid (all four quadrants) draw and translate simple shapes on the coordinate plane, and reflect them in the axes. <p>Notes and guidance (non-statutory)</p> <p>Pupils draw and label a pair of axes in all four quadrants with equal scaling. This extends their knowledge of one quadrant to all four quadrants, including the use of negative numbers.</p> <p>Pupils draw and label rectangles (including squares), parallelograms and rhombuses, specified by coordinates in the four quadrants, predicting missing coordinates using the properties of shapes. These might be expressed algebraically for example, translating vertex (a, b) to $(a - 2, b + 3)$; (a, b) and $(a + d, b + d)$ being opposite vertices of a square of side d.</p>	<p>Statutory requirements</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> interpret and construct pie charts and line graphs and use these to solve problems calculate and interpret the mean as an average. <p>Notes and guidance (non-statutory)</p> <p>Pupils connect their work on angles, fractions and percentages to the interpretation of pie charts.</p> <p>Pupils both encounter and draw graphs relating two variables, arising from their own enquiry and in other subjects.</p> <p>They should connect conversion from kilometres to miles in measurement to its graphical representation.</p> <p>Pupils know when it is appropriate to find the mean of a data set.</p>





Year 6 – Yearly Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number- Place Value		Number- Addition, Subtraction, Multiplication and Division				Fractions				Geometry- Position and Direction	Consolidation
Spring	Number- Decimals		Number- Percentages		Number- Algebra		Measurement Converting units	Measurement Perimeter, Area and Volume		Number- Ratio		Consolidation
Summer	Geometry- Properties of Shapes		Problem solving			Statistics		Investigations				Consolidation

Year 6 – Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	
<u>Number: Place Value</u> Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit. Round any whole number to a required degree of accuracy. Use negative numbers in context, and calculate intervals across zero. Solve number and practical problems that involve all of the above.		<u>Number- addition subtraction, multiplication + division</u> Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why. Multiply multi-digit number up to 4 digits by a 2-digit number using the formal written method of long multiplication. Divide numbers up to 4 digits by a 2-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding as appropriate for the context. Divide numbers up to 4 digits by a 2-digit number using the formal written method of short division, interpreting remainders according to the context. Perform mental calculations, including with mixed operations and large numbers. Identify common factors, common multiples and prime numbers. Use their knowledge of the order of operations to carry out calculations involving the four operations. Solve problems involving addition, subtraction, multiplication and division. Use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy.				<u>Fractions</u> Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Compare and order fractions, including fractions > 1 Generate and describe linear number sequences (with fractions) Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions. Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$] Divide proper fractions by whole numbers [for example $\frac{1}{3} \div 2 = \frac{1}{6}$] Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example $\frac{3}{8}$] Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.				<u>Geometry- Position and Direction</u> Describe positions on the full coordinate grid (all four quadrants). Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.		Consolidation



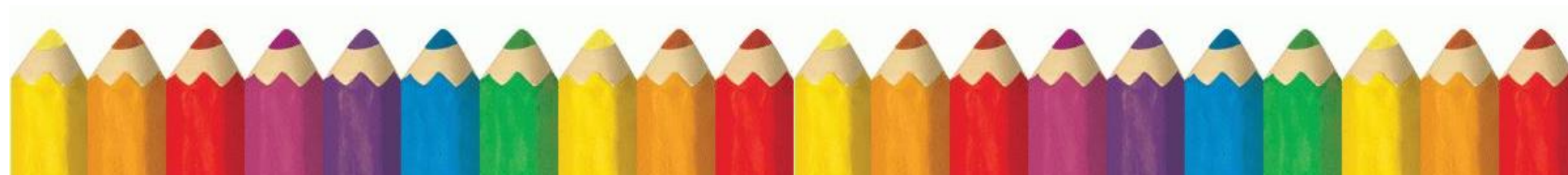


Year 6 – Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	
<u>Number: Decimals</u> Identify the value of each digit in numbers given to 3 decimal places and multiply numbers by 10, 100 and 1,000 giving answers up to 3 decimal places. Multiply one-digit numbers with up to 2 decimal places by whole numbers. Use written division methods in cases where the answer has up to 2 decimal places. Solve problems which require answers to be rounded to specified degrees of accuracy.		<u>Number: Percentages</u> Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison. Recall and use equivalences between simple fractions, decimals and percentages including in different contexts.		<u>Number: Algebra</u> Use simple formulae Generate and describe linear number sequences. Express missing number problems algebraically. Find pairs of numbers that satisfy an equation with two unknowns. Enumerate possibilities of combinations of two variables.		<u>Measurement</u> <u>Converting Units</u> Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3dp. Convert between miles and kilometres.		<u>Measurement: Perimeter, Area and Volume</u> Recognise that shapes with the same areas can have different perimeters and vice versa. Recognise when it is possible to use formulae for area and volume of shapes. Calculate the area of parallelograms and triangles. Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm ³ , m ³ and extending to other units (mm ³ , km ³)		<u>Number: Ratio</u> Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. Solve problems involving similar shapes where the scale factor is known or can be found. Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.		Consolidation

Year 6 – Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Geometry: Properties of Shapes</u> Draw 2-D shapes using given dimensions and angles. Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons. Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.		Problem Solving			<u>Statistics</u> Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. Interpret and construct pie charts and line graphs and use these to solve problems. Calculate the mean as an average.		Investigations				Consolidation

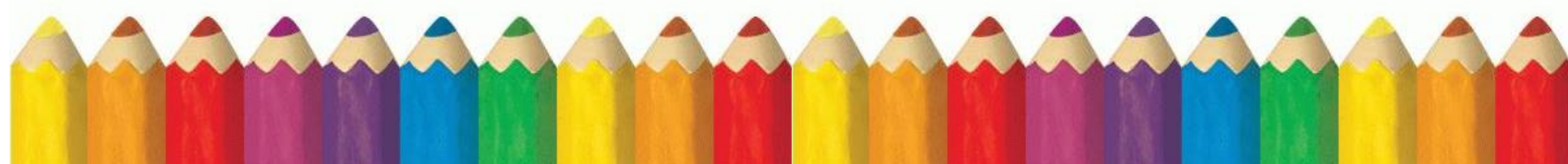




Watcombe Primary School



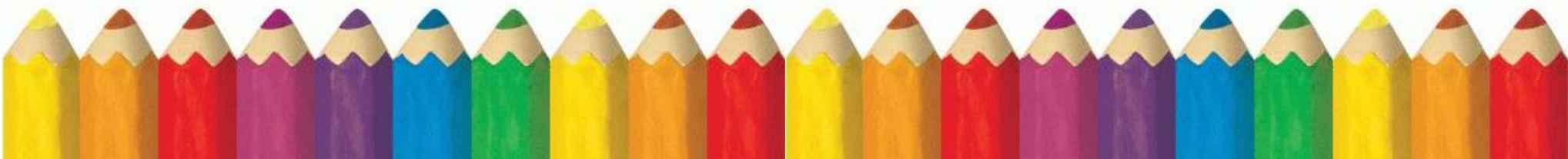
English





English – Intent, Implementation, Impact

Intent
<p>At Watcombe Primary School, English and the teaching of English is the foundation of our curriculum. Our main aim is to ensure that every single child becomes literate and makes good progress in the areas of reading, writing, speaking & listening so that they can communicate their ideas and emotions to others.</p> <p>Through reading in particular, pupils have a chance to develop culturally, emotionally, intellectually, socially and spiritually in order to participate fully in society. We aim to ensure every single child becomes a fluent and expressive reader with a high level of both comprehension and enjoyment. It is our intent that all members of the school community see reading as a high-priority life-long skill, one which is embedded and utilised across the curriculum. We recognise that pupils start school with varying levels of exposure to stories and books and that pupils also have a significant variance in the amount and type of vocabulary that they have experience of. It is our intent that any gaps in experience and filled through immersion continuous access to high-quality texts and the development of a vocabulary-rich learning environments.</p> <p>In writing, our intent is for the curriculum to enable learners to write effectively for a range of purposes and audiences demonstrating a high level of transcription (inc. grammar) and composition. We want our learners to understand the features of both fiction and non-fiction genres in order to select the appropriate form to fit the purpose, and to draw independently on what they have read as models for their own writing. We aim to inspire learners’ by using high quality model texts; by writing for a ‘real’ purpose; and writing within the context of the children’s own knowledge and interest. This will equip pupils to think and behave as writers: applying planning and editing skills; using grammar, punctuation, handwriting and spelling skills; developing richer vocabulary; and using composition skills to produce high-quality writing. The intent is to develop learners’ skills, knowledge and understanding of writing in line with the primary curriculum, creating a firm foundation for future learning at KS3.</p> <p>Within all areas of the curriculum speaking & listening is viewed as important with opportunities given for children to develop their skills and become more articulate and confident – cognitively, socially and linguistically. Pupils should develop a capacity to explain their understanding of books and other reading, and to prepare their ideas before they write.</p>
Implementation
<p>Reading:</p> <p>Children across the school take part in a daily reading session where they are systematically taught the skills needed to decode and enjoy texts:</p> <ul style="list-style-type: none">- In EYFS and key stage one, children take part in a daily Read Write Inc session which systematically develops their synthetic phonics skills. The session includes opportunities to:<ul style="list-style-type: none">o apply phonic knowledge and skills as the route to decode wordso respond speedily with the correct sound to graphemes for all 40+ phonemes, including, where applicable, alternative sounds for graphemeso read accurately by blending sounds in unfamiliar words containing GPCs that have been taughto read common exception words, noting unusual correspondences between spelling and sound and where these occur in the wordo read other words of more than one syllable that contain taught GPCso read words with contractions [for example, I’m, I’ll, we’ll], and understand that the apostrophe represents the omitted letter(s)o read books aloud, accurately, that are consistent with their developing phonic knowledge and that do not require them to use other strategies to work out wordso reread these books to build up their fluency and confidence in word reading- As the children progress into KS2 children have a daily reading session where the class focus upon a high-quality, age-appropriate shared text (across the year this will include a range of fiction types, poetry and non-fiction genres). These sessions continue to have a core focus upon developing fluency and expression within reading but challenge the children to develop and hone their more complex comprehension skills e.g. prediction, inference and summary. These sessions typically involve the children finding out for themselves and discussing ideas and opinions with peers. The class will review learning together and the end of the session. <p>Children are encouraged to read at home on a daily basis by taking home a book to practise their skills with parents. In EYFS/KS1 these books only include phonemes that they have already been taught so that children develop a sense of confidence and feeling of success. As the children mature in their reading skills they take home books chosen from a book band which matches their skill level. The book choice on offer include fiction and non-fiction and incorporate a range of classic and modern authors. As a school we set an expectation of ‘five reads a week’ within the home and this is monitored in every classroom. Those children achieving this expectation are celebrated and the class with the winning number of reads each week/across the term is rewarded.</p> <p>A love of reading is fostered so that pupils become motivated readers and this is supported by all classes across the school sharing a daily story which is read by an adult.</p> <p>To fill the ‘word-gap’ experienced by some children we actively promote the love of reading within school by offering a literature rich environment. All classes have a story or class novel which is shared every day. EYFS have a ‘fabulous five’ set of books which they plan their curriculum around each half term. There are a wide range of books to share available at lunchtime in the ‘activity room’. We operate a lending library of stories for families to share at home as bedtime books. This is an area that we continuously seek to extend.</p>





Implementation

Writing:
The writing curriculum is planned from the National Curriculum and delivered through a block of work or learning journey which we call 'The Watcombe Way'.

This teaching sequence follows a series of steps, moving the pupils from supported tasks towards being enabled to apply their skills independently: text type (genre) familiarisation; developing the appropriate vocabulary, sentence and grammar/punctuation work; supported writing tasks, including shared writing as a whole class and guided writing in small groups; and finally, independent writing, including opportunities to plan and edit. Pupils are given regular opportunities for extended, independent writing at the end of a block of work, close to the point of teaching, which we call 'Best write'. This enables pupils to apply their skills independently, and teachers the opportunity to assess pupils' progress.

From foundation to year 6, meaningful links of a widening range of fiction and non-fiction text types are made to topics eg. report writing for a history topic, explanation writing for a science topic or instructional writing for a technology topic. Writing is therefore taught within the context of a topic that the children are familiar with and learning about. Where appropriate, the pupils also work towards a purposeful outcome for their written work eg. a recipe book within a food technology topic.

In addition to the learning journey, spelling skills, such as phonic knowledge, knowledge of prefixes and suffixes and spelling rules, are directly taught through regular explicit spelling lessons. Children are encouraged to apply their skills through their day to day writing. Teachers seek to find opportunities to model these skills to the children during writing lessons. Pupils are also given opportunity to learn common key words which they will use on a daily basis in their writing, and to correct spellings where appropriate.

The understanding of grammar is taught intrinsically through day to day writing lessons: pupils are encouraged to use the correct grammatical terminology to talk about their writing. Teachers also seek opportunities to model the correct use of grammatical terms through their teaching. In Year 5/6, grammar is also taught explicitly through dedicated grammar lessons, which aim to ensure that pupils are the best prepared they can be for the grammar element of their SATs tests.

Handwriting is also taught explicitly in discrete sessions using the *Letter-join* font. Teachers also seek opportunities to model the correct formation, orientation and joining of letters through day-to-day teaching.

A clear programme of study is used to systematically build upon prior skills, knowledge and understanding.

Speaking & listening:
Opportunities to develop speaking and listening skills are incorporated into lessons on a daily basis as well as through specifically planned activities to target skills. Staff have high expectations of children and in order to develop pupils skills the school has focused heavily upon ensuring that adults are asking high-quality questions and modelling good use of standard English in their responses.

Impact

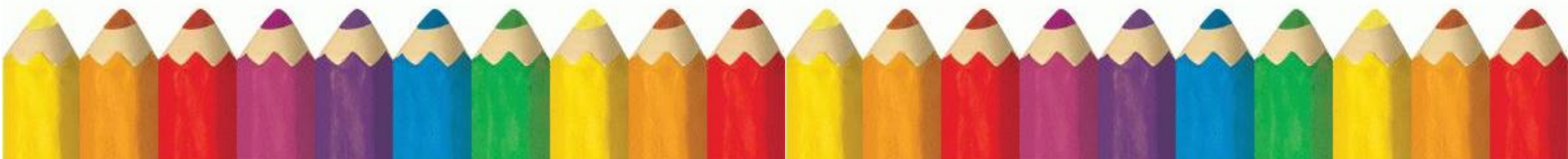
In English curriculum will make a profound, positive impact to the outcomes of every child. The impact of our curriculum can be seen through the children's progress, confidence, sustained learning and acquisition of knowledge and transferrable skills.

By the end of Y6 pupils should:

- Demonstrate a love for reading for a range of purposes across different genres
- Be able to discuss what they have read, showing good comprehension, making comparisons and recommendations
- drawing inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence
- understand the difference between opinion and fact and participate in discussions about books that are read to them and those they can read for themselves providing reasoned justifications for their views.
- write legibly, fluently and with increasing speed
- be able to plan writing identifying the audience for and purpose of the writing
- in writing narratives, considering how authors have developed characters and settings
- use organisational and presentational devices to structure text and to guide the reader
- use appropriate spelling and grammatical knowledge and skills

To ensure appropriate progress is being achieved, the impact of the curriculum will be reviewed through regular:

- Pupil conferencing
- Teaching & Learning
- Ongoing formative assessment
- Summative assessment processes in line with the school assessment calendar
- Work sampling





Reading – Expectations across the School

Read, Write, Inc/Book Bands	End of Year Expectation
Blending books / ditties	-
Red	-
Green	END OF RECEPTION
Purple	
Pink	
Orange	-
Yellow	END OF YEAR 1
Blue	-
Grey	END OF YEAR 2* Completion of Read, Write, Ink.
9	
10	
11	END OF YEAR 3
13	-
14	END OF YEAR 4
15	-
16	END OF YEAR 5
17	-
Free (+)	END of YEAR 6





Reading – Early Years

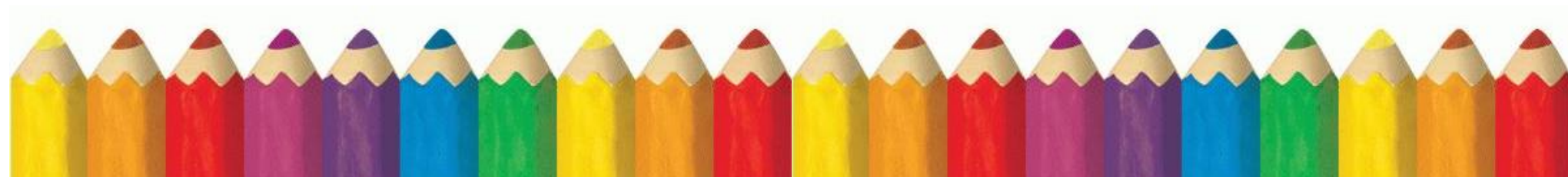
The 2021 EYFS framework is structured very differently to the National Curriculum as it is organised across seven areas of learning rather than specific subject areas. The aim of this document is to help subject leaders to understand how the skills taught across the EYFS feed into National Curriculum subjects. The Early Learning Goals (ELG) should be used to support teachers to make a holistic, best-fit judgement about a child's development, and their readiness for year 1. It is important to note that the ELG are not the Watcombe curriculum and do not limit teachers in their provision.

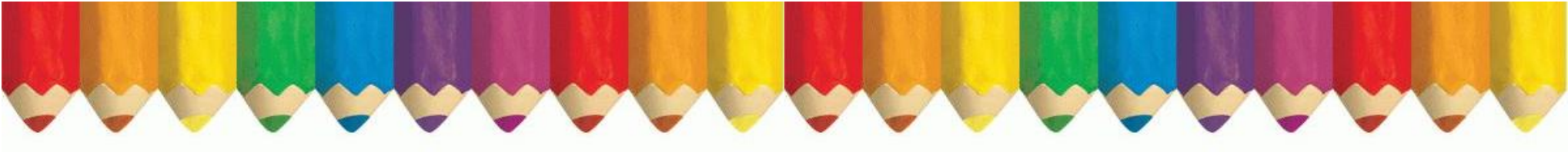
This document demonstrates which early years outcomes are prerequisite skills for Reading within the National Curriculum. Bellow you can find the most relevant ELG to Reading. Further recommendations on the pathways of children's development in ages and stages are found from the 2021 Development matters which can be found

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1007446/6.7534_DfE_Development_Matters_Report_and_illustrations_web_2_.pdf

The most relevant ELG for Reading are taken from the areas of Communication and Language, and Literacy.

Listening Attention and Understanding ELG:	Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions; - Make comments about what they have heard and ask questions to clarify their understanding; - Hold conversation when engaged in back-and-forth exchanges with their teacher and peers.
Speaking ELG:	Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary; - Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate; - Express their ideas and feelings about their experiences using full sentences, including use of past, present, and future tenses and making use of conjunctions, with modelling and support from their teacher.
Comprehension ELG:	Demonstrate understanding of what has been read to them by retelling stories and narratives using their own words and recently introduced vocabulary; - Anticipate – where appropriate – key events in stories; - Use and understand recently introduced vocabulary during discussions about stories, non-fiction, rhymes and poems and during role-play.
Word Reading ELG:	Say a sound for each letter in the alphabet and at least 10 digraphs; - Read words consistent with their phonic knowledge by sound-blending; - Read aloud simple sentences and books that are consistent with their phonic knowledge, including some common exception words.





Reading - Year 1 Overview

Word Reading			Comprehension			
	Decoding	By year end	Reading for Pleasure	Inference, Prediction, Clarifying, Questioning, Summarising	Language for Effect	Themes and Convention
Y1	Apply phonic knowledge and skills to decode words: - Blend accurately and speedily using known graphemes - Re-read with fluency and confidence - Read accurately - Recognise when a word does not make sense Read common exception words accurately.	Phonically decodable texts – in line with RWI Book bands: Yellow	Participate actively in listening and sharing a wide range of books. Choose to read.	Infer - In texts read to them and simple texts read themselves, make inferences on the basis of what is being said and done e.g. How a character feels, why a character does something. Through the Read, Write, Ink scheme Predict - With support can link own experiences to what they read. - Make predictions about reading: - from a title and front cover of a book. - on the basis of what has been read so far Clarify - Discuss word meanings, making links to known vocabulary. Question - Raise simple questions about texts they read and that are read to them. Answer simple, information retrieval questions about texts. Summarise - Link title to key events in a text.	Recognise and join in with predictable phrases.	Retell familiar stories and rhymes and talk about their key features.





Reading - Year 2 Overview

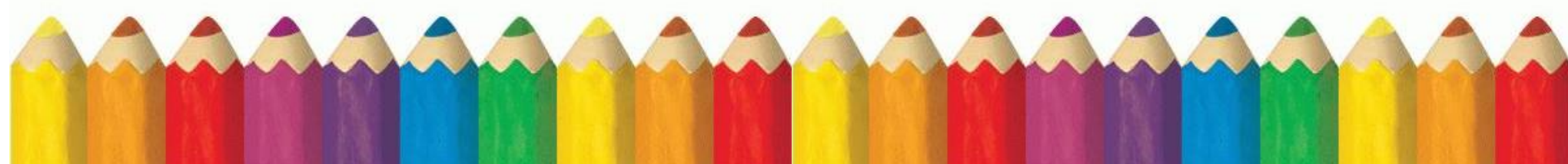
Word Reading			Comprehension			
	Decoding	By year end	Reading for Pleasure	Inference, Prediction, Clarifying, Questioning, Summarising	Language for Effect	Themes and Convention
Y2	<p>Read age-appropriate books: -sounding out unfamiliar words - beginning to self-correct</p> <p>Read accurately, automatically and without undue hesitation including:</p> <ul style="list-style-type: none">Words of 2 or more syllablesWords containing common suffixesMost common exception words <p>Read most words quickly and accurately without blending out loud, e.g over 90 words per minute</p> <p>Begin to read silently with understanding.</p>	<p>Book bands: Level 9 having completed RWI</p> <p>Reading age 7.0 +</p>	<p>Read independently, demonstrating increasing stamina.</p> <p>Show developing preferences through book choice.</p>	<p>Infer - Make inferences from texts that they read themselves, on the basis of</p> <ul style="list-style-type: none">what’s being said and donecause and effect <p>drawing on what they already know or on background information or vocabulary (provided by the teacher).</p> <p>Predict what might happen on the basis of what has been read so far.</p> <p>Clarify - Discuss and clarify the meaning of words to understand texts further.</p> <p>In familiar books, check that it makes sense.</p> <p>Question - Ask and answer questions about texts.</p> <p>Summarise - Identify and explain the sequence of events in texts.</p>	<p>Identify simple literary language in stories and poetry.</p> <p>Discuss favourite words and phrases and their impact on the meaning.</p>	<p>Identify key aspects of texts, e.g. .fiction: characters, setting, plot, Non-fiction: titles/headings, contents, index, glossary</p> <p>With support, justify personal response to texts.</p>





Reading – Year 3 & 4 Overview

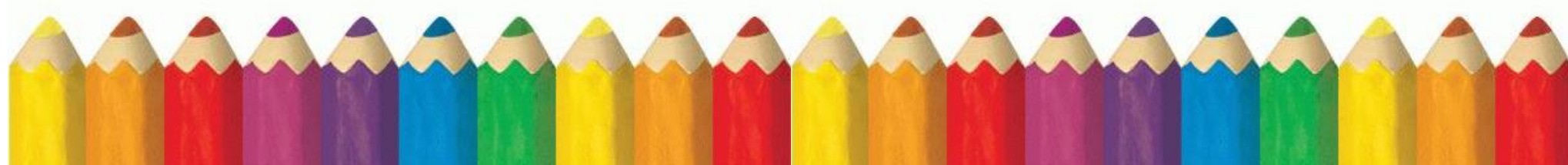
Word Reading		By year end	Comprehension			
	Decoding		Reading for Pleasure		Language for Effect	Themes and Convention
Y 3 / 4	Decode most new words outside of spoken vocabulary.	Year 3 AR level 2.9+	Read for a range of purposes independently.	Infer - draw inferences such as characters' feelings, thoughts and motives from their actions, and justify with evidence from the text or life experience.	Identify language, structural and presentational features of texts and discuss how they contribute to the meaning.	Begin to make connections between texts.
	Read longer words with support.	Bookband 9-11	Choose appropriate texts with support.	Predict - what might happen from details stated and implied based on: - content - simple themes/ text types Justify predictions with evidence	Discuss words and phrases that engage the reader. Give extended explanations of the impact of language choices on meaning.	Begin to identify simple common themes in texts e.g. good vs evil, use of magical devices.
	Use the context of a sentence to read unfamiliar words.	Reading Age: 8+	Demonstrate engagement with reading: - reading for sustained periods of time			Begin to identify conventions of different types of writing.
	Self-correct consistently	Year 4 AR level 3.9+	- complete books - engaging actively in book discussion	Clarify - use dictionaries to check the meanings of words they have read.		Comment on the use of conventions in different types of writing.
	Read simple chapter books independently and silently.	Bookband 11-13	- respond to reading in a written form	Questioning - ask and answer questions to improve understanding of a text.		
		Reading Age: 9+		Summarising - identify main ideas drawn from more than one paragraph and summarise these. Retrieve and record information from non-fiction		





Reading – Year 5 & 6 Overview

Word Reading			Comprehension			
	Decoding	By year end	Reading for Pleasure	Inference, Prediction, Clarifying, Questioning, Summarising	Language for Effect	Themes and Convention
Y 5 / 6	Read age-appropriate books with confidence and fluency, including whole novels	Year 5 AR 4.9+	Read a broader range of texts including those from literary heritage and more challenging texts.	Infer - Make inferences drawn from across and between texts and justify with evidence. Use PEE (Point, Evidence, and Explanation) to support inferences.	Discuss how the structural and presentational choices impact on meaning, theme and purpose.	Identify the themes and conventions of a range of texts.
	Use a range of reading strategies to work out any unfamiliar word.	RA 10+	Recommend books they have read to their peers, giving reasons for their choices.	Predict - Predict what might happen from details stated and implied based on: - themes - conventions - knowledge about the author - genres	Discuss and evaluate texts, commenting on writers' use of words, phrases and language features including figurative language.	Discuss/comment on themes and conventions in different genres and forms.
	Read aloud and to perform, showing understanding through intonation, tone and volume so that meaning is clear to an audience.	Year 6 AR 5.9+ RA 11+	Demonstrate continuing engagement with reading: • reading for sustained periods of time • complete a wider range of more challenging and lengthier books • engage actively in book discussions with and without adult support. • Respond to reading in a written form, beginning to develop a critical stance.	Clarify - Give the meaning of words in context. Explore and explain the meaning of words in context. Distinguish between fact and opinion. Clarify concepts and ideas at sentence, paragraph and whole text level.		Make comparisons and contrasts within and across texts. Discuss viewpoints (both of the author and fictional characters), within a text and across more than one text.
				Question - Ask and answer questions to improve understanding of themes and authorial intent.		Provide reasoned justifications for opinions about a book.
				Summarise - Identify and summarise main ideas from across a text. Identify key details that support main ideas using quotation for illustration Retrieve, record and present key information from non-fiction.		

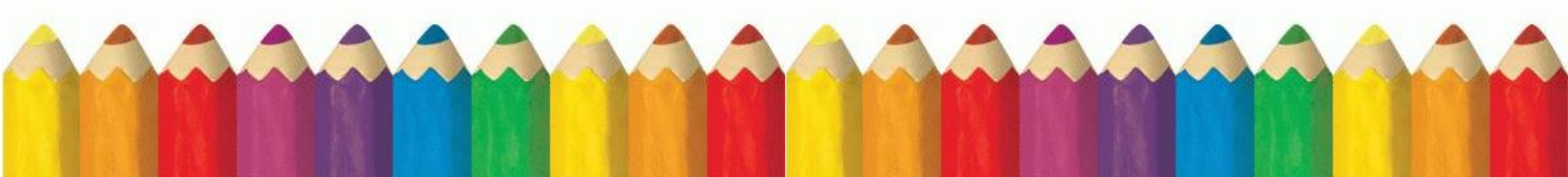




Progression in Phonics

PHONIC DEVELOPMENT – READ WRITE INC.

	End of Autumn	End of Spring	End of Summer
Nursery	<p>The focus is on developing children's attention, listening and speaking skills through first-hand experiences, ongoing child-initiated play opportunities and a planned sequence of adult-led activities. In the latter stage of Nursery, this includes developing children's phonological awareness, and their oral blending and segmenting skills through 'Fred Talk' games.</p> <p>These activities are part of a broad and rich language curriculum in the context of an environment rich in print. Developing a love of books and reading is at the centre of this, with a focus on 'Our Fabulous 5!' books and a traditional tale every half-term.</p> <p>The letter formation rhymes are used to support children who are developmentally ready, and have the physical skills and control necessary, to copy and form letters correctly.</p>		
Reception	<p>Learn by sight: Set 1 speed sounds: m a s d t, i n p g o, c k u b, f e l h sh, r j v y w, th z ch qu x ng nk</p> <p>1 speed sound / day – in the above order Begin to blend words</p> <p>Read Set 1 sounds and learning to blend and assisted blending books</p>	<p>Learn by sight: Set 1 speed sounds: m a s d t, i n p g o, c k u b, f e l h sh, r j v y w, th z ch qu x ng nk</p> <p>1 speed sound / day – in the above order Blend words – achieve reading green words for each set of 5 speed sounds No letter names used</p> <p>Read Ditties and Red books</p>	<p>Learn by sight: Set 2 speed sounds: ay,ee,igh,ow,oo,oo,ar,or,a ir,ir,ou,oy</p> <p>1 speed sound / day – in the above order Blend words – achieve reading green words for each set of 5 speed sounds No letter names used</p> <p>Read Green / Purple books</p>
y1	<p>Learn by sight Set 2 & and some set 3 Set 3: ea,oi,a-e,i-e,o-e, u-e,aw,are,ur,er,ow,ai,oa, ew, ire,ear,ure</p> <p>Read Pink books</p>	<p>Learn by sight Set 2 and most of set 3 words</p> <p>Read Orange / Yellow books</p>	<p>Learn by sight Set 2, read and spell all set 3 words.</p> <p>Read Yellow / Blue books</p> <p>Read all year 1 Common exception words</p>
Y2	<p>Learn by sight Set 2, read and spell all set 3 words.</p> <p>Read Blue books</p>	<p>Learn by sight Set 2, read and spell all set 3 words.</p> <p>Read /Grey books</p>	<p>Apply all RWI sounds and Year 2 spelling rules.</p> <p>Read Book band 9 books*</p> <p>Completed RWI</p> <p>Read all year 2 Common exception words</p>





Writing – Early Years

The 2021 EYFS framework is structured very differently to the National Curriculum as it is organised across seven areas of learning rather than specific subject areas. The aim of this document is to help subject leaders to understand how the skills taught across the EYFS feed into National Curriculum subjects. The Early Learning Goals (ELG) should be used to support teachers to make a holistic, best-fit judgement about a child's development, and their readiness for year 1. It is important to note that the ELG are not the Watcombe curriculum and do not limit teachers in their provision.

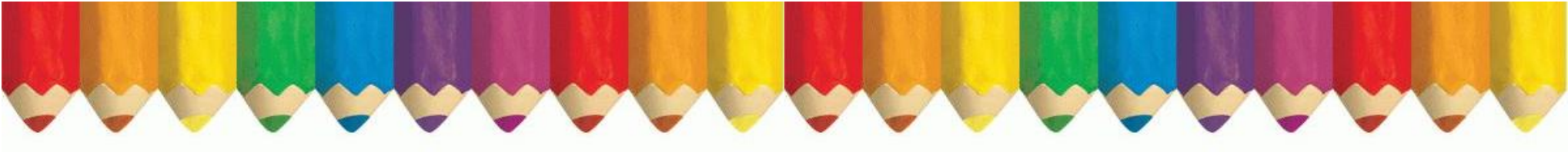
This document demonstrates which early years outcomes are prerequisite skills for Writing within the National Curriculum. Bellow you can find the most relevant ELG to Writing. Further recommendations on the pathways of children's development in ages and stages are found from the 2021 Development matters which can be found

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The most relevant ELG for Writing are taken from the areas of Communication and Language, Physical development and Literacy.

Listening Attention and Understanding ELG:	Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions; - Make comments about what they have heard and ask questions to clarify their understanding; - Hold conversation when engaged in back-and-forth exchanges with their teacher and peers.
Speaking ELG:	Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary; - Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate; - Express their ideas and feelings about their experiences using full sentences, including use of past, present, and future tenses and making use of conjunctions, with modelling and support from their teacher.
Fine Motor Skills ELG:	Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases; - Use a range of small tools, including scissors, paint brushes and cutlery; - Begin to show accuracy and care when drawing.
Comprehension ELG:	Demonstrate understanding of what has been read to them by retelling stories and narratives using their own words and recently introduced vocabulary; - Anticipate – where appropriate – key events in stories; - Use and understand recently introduced vocabulary during discussions about stories, non-fiction, rhymes and poems and during role-play.
Writing ELG:	Write recognisable letters, most of which are correctly formed; - Spell words by identifying sounds in them and representing the sounds with a letter or letters; - Write simple phrases and sentences that can be read by others.





Writing - Year 1 Programme of Study

Writing – handwriting

Statutory requirements

- Pupils should be taught to:
- sit correctly at a table, holding a pencil comfortably and correctly
 - begin to form lower-case letters in the correct direction, starting and finishing in the right place
 - form capital letters
 - form digits 0-9
 - understand which letters belong to which handwriting ‘families’ (i.e. letters that are formed in similar ways) and to practise these.

Notes and guidance (non-statutory)

Handwriting requires frequent and discrete, direct teaching. Pupils should be able to form letters correctly and confidently. The size of the writing implement (pencil, pen) should not be too large for a young pupil’s hand. Whatever is being used should allow the pupil to hold it easily and correctly so that bad habits are avoided.

Left-handed pupils should receive specific teaching to meet their needs.

Writing – composition

Statutory requirements

- Pupils should be taught to:
- write sentences by:
 - saying out loud what they are going to write about
 - composing a sentence orally before writing it
 - sequencing sentences to form short narratives
 - re-reading what they have written to check that it makes sense
 - discuss what they have written with the teacher or other pupils
 - read aloud their writing clearly enough to be heard by their peers and the teacher.

Notes and guidance (non-statutory)

At the beginning of year 1, not all pupils will have the spelling and handwriting skills they need to write down everything that they can compose out loud.

Pupils should understand, through demonstration, the skills and processes essential to writing: that is, thinking aloud as they collect ideas, drafting, and re-reading to check their meaning is clear.

Writing – vocabulary, grammar and punctuation

Statutory requirements

- Pupils should be taught to:
- develop their understanding of the concepts set out in [English Appendix 2](#) by:
 - leaving spaces between words
 - joining words and joining clauses using and
 - beginning to punctuate sentences using a capital letter and a full stop, question mark or exclamation mark





Statutory requirements

- using a capital letter for names of people, places, the days of the week, and the personal pronoun ‘I’
- learning the grammar for year 1 in English Appendix 2
- use the grammatical terminology in English Appendix 2 in discussing their writing.

Notes and guidance (non-statutory)

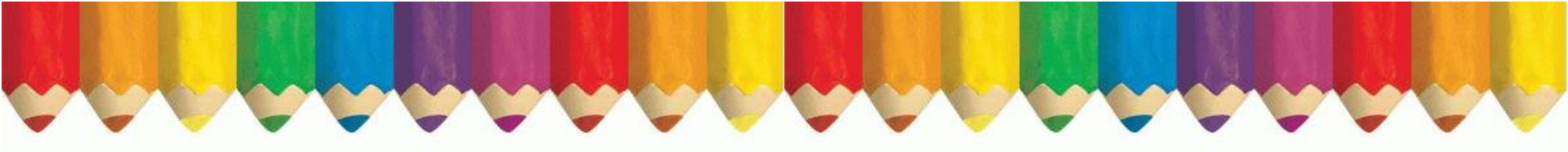
Pupils should be taught to recognise sentence boundaries in spoken sentences and to use the vocabulary listed in [English Appendix 2](#) (‘Terminology for pupils’) when their writing is discussed.

Pupils should begin to use some of the distinctive features of Standard English in their writing. ‘Standard English’ is defined in the [Glossary](#).

Year 1: Detail of content to be introduced (statutory requirement)

Word	Regular plural noun suffixes –s or –es [for example, <i>dog, dogs; wish, wishes</i>], including the effects of these suffixes on the meaning of the noun Suffixes that can be added to verbs where no change is needed in the spelling of root words (e.g. <i>helping, helped, helper</i>) How the prefix un– changes the meaning of verbs and adjectives [negation, for example, <i>unkind</i> , or <i>undoing: untie the boat</i>]
Sentence	How words can combine to make sentences Joining words and joining clauses using <i>and</i>
Text	Sequencing sentences to form short narratives
Punctuation	Separation of words with spaces Introduction to capital letters, full stops, question marks and exclamation marks to demarcate sentences Capital letters for names and for the personal pronoun I
Terminology for pupils	letter, capital letter word, singular, plural sentence punctuation, full stop, question mark, exclamation mark





Spelling – work for year 1

Revision of reception work

Statutory requirements

The boundary between revision of work covered in Reception and the introduction of new work may vary according to the programme used, but basic revision should include:

- all letters of the alphabet and the sounds which they most commonly represent
- consonant digraphs which have been taught and the sounds which they represent
- vowel digraphs which have been taught and the sounds which they represent
- the process of segmenting spoken words into sounds before choosing graphemes to represent the sounds
- words with adjacent consonants
- guidance and rules which have been taught

Statutory requirements

The sounds /f/, /l/, /s/, /z/ and /k/ spelt ff, ll, ss, zz and ck

The /ŋ/ sound spelt n before k

Division of words into syllables

Rules and guidance (non-statutory)

The /f/, /l/, /s/, /z/ and /k/ sounds are usually spelt as **ff**, **ll**, **ss**, **zz** and **ck** if they come straight after a single vowel letter in short words. **Exceptions:** if, pal, us, bus, yes.

Each syllable is like a ‘beat’ in the spoken word. Words of more than one syllable often have an unstressed syllable in which the vowel sound is unclear.

Example words (non-statutory)

off, well, miss, buzz, back

bank, think, honk, sunk

pocket, rabbit, carrot, thunder, sunset

Statutory requirements

-tch

The /v/ sound at the end of words

Adding s and es to words (plural of nouns and the third person singular of verbs)

Adding the endings –ing, –ed and –er to verbs where no change is needed to the root word

Rules and guidance (non-statutory)

The /tʃ/ sound is usually spelt as **tch** if it comes straight after a single vowel letter. **Exceptions:** rich, which, much, such.

English words hardly ever end with the letter **v**, so if a word ends with a /v/ sound, the letter **e** usually needs to be added after the ‘v’.

If the ending sounds like /s/ or /z/, it is spelt as **–s**. If the ending sounds like /ɪz/ and forms an extra syllable or ‘beat’ in the word, it is spelt as **–es**.

–ing and **–er** always add an extra syllable to the word and **–ed** sometimes does.
The past tense of some verbs may sound as if it ends in /ɪd/ (extra syllable), /d/ or /t/ (no extra syllable), but all these endings are spelt **–ed**. If the verb ends in two consonant letters (the same or different), the ending is simply added on.

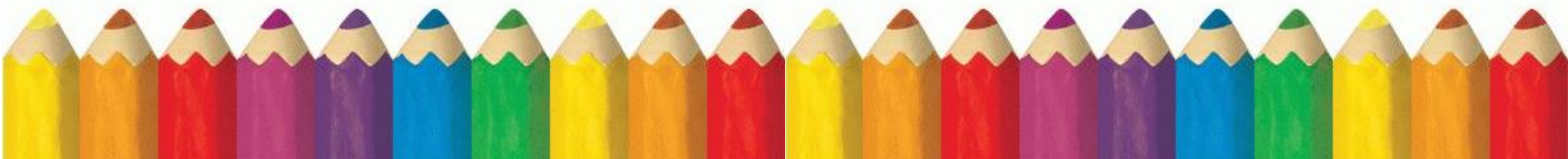
Example words (non-statutory)

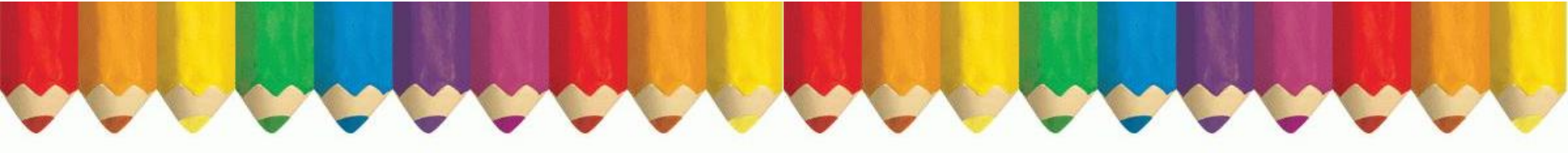
catch, fetch, kitchen, notch, hutch

have, live, give

cats, dogs, spends, rocks, thanks, catches

hunting, hunted, hunter, buzzing, buzzed, buzzer, jumping, jumped, jumper





Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
Adding –er and –est to adjectives where no change is needed to the root word	As with verbs (see above), if the adjective ends in two consonant letters (the same or different), the ending is simply added on.	grander, grandest, fresher, freshest, quicker, quickest

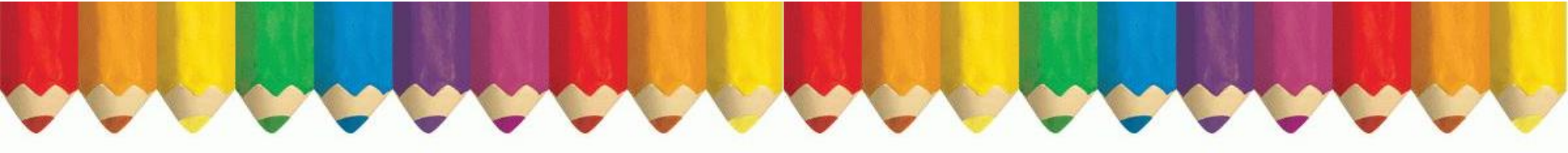
Vowel digraphs and trigraphs

Some may already be known, depending on the programmes used in Reception, but some will be new.

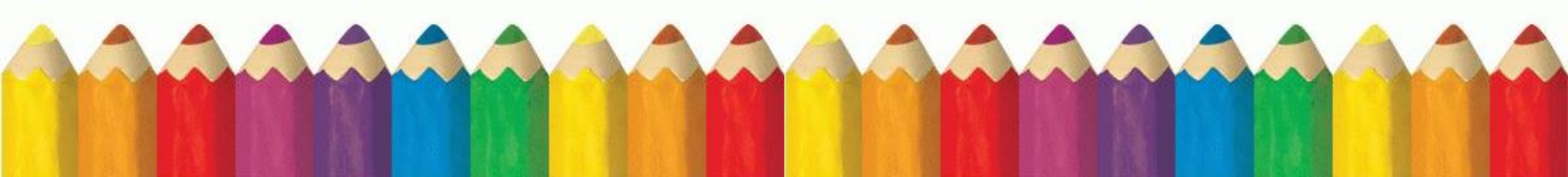
Vowel digraphs and trigraphs	Rules and guidance (non-statutory)	Example words (non-statutory)
ai, oi	The digraphs ai and oi are virtually never used at the end of English words.	rain, wait, train, paid, afraid oil, join, coin, point, soil
ay, oy	ay and oy are used for those sounds at the end of words and at the end of syllables.	day, play, say, way, stay boy, toy, enjoy, annoy
a–e		made, came, same, take, safe
e–e		these, theme, complete
i–e		five, ride, like, time, side
o–e		home, those, woke, hope, hole
u–e	Both the /u:/ and /ju:/ (‘oo’ and ‘yoo’) sounds can be spelt as u–e .	June, rule, rude, use, tube, tune
ar		car, start, park, arm, garden
ee		see, tree, green, meet, week
ea (/i:/)		sea, dream, meat, each, read (present tense)
ea (/ɛ/)		head, bread, meant, instead, read (past tense)
er (/ɜ:/)		(stressed sound): her, term, verb, person
er (/ə/)		(unstressed <i>schwa</i> sound): better, under, summer, winter, sister
ir		girl, bird, shirt, first, third
ur		turn, hurt, church, burst, Thursday

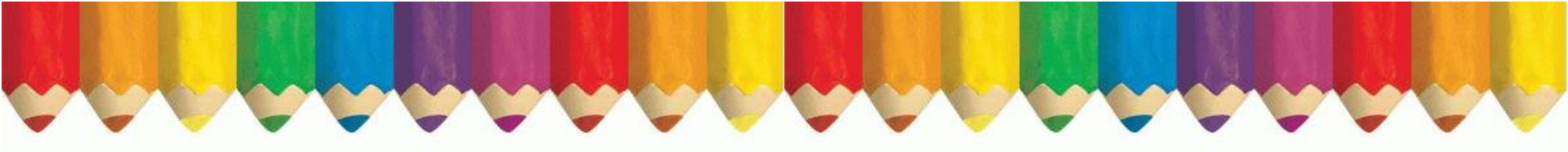
Vowel digraphs and trigraphs	Rules and guidance (non-statutory)	Example words (non-statutory)
oo (/u:/)	Very few words end with the letters oo , although the few that do are often words that primary children in year 1 will encounter, for example, <i>zoo</i>	food, pool, moon, zoo, soon
oo (/ʊ/)		book, took, foot, wood, good
oa	The digraph oa is very rare at the end of an English word.	boat, coat, road, coach, goal
oe		toe, goes





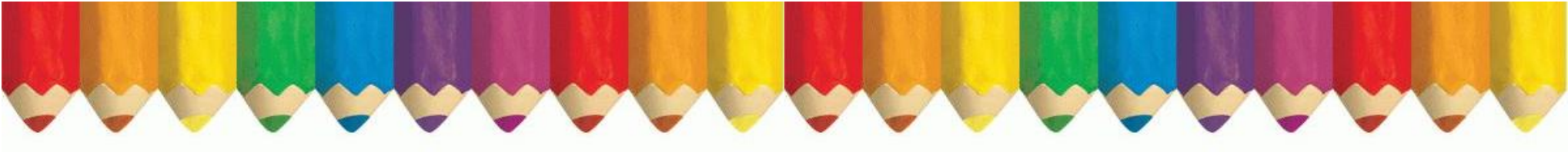
Vowel digraphs and trigraphs	Rules and guidance (non-statutory)	Example words (non-statutory)
ou	The only common English word ending in ou is <i>you</i> .	out, about, mouth, around, sound
ow (/aʊ/) ow (/əʊ/) ue ew	Both the /u:/ and /ju:/ ('oo' and 'yoo') sounds can be spelt as u , e , ue and ew . If words end in the /oo/ sound, ue and ew are more common spellings than oo .	now, how, brown, down, town own, blow, snow, grow, show blue, clue, true, rescue, Tuesday new, few, grew, flew, drew, threw
ie (/aɪ/)		lie, tie, pie, cried, tried, dried
ie (/i:/)		chief, field, thief
igh		high, night, light, bright, right
or		for, short, born, horse, morning
ore		more, score, before, wore, shore
aw		saw, draw, yawn, crawl
au		author, August, dinosaur, astronaut
air		air, fair, pair, hair, chair
ear		dear, hear, beard, near, year
ear (/ɛə/)		bear, pear, wear
are (/ɛə/)		bare, dare, care, share, scared





Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
Words ending –y (/i:/ or /ɪ/)		very, happy, funny, party, family
New consonant spellings ph and wh	The /f/ sound is not usually spelt as ph in short everyday words (e.g. <i>fat, fill, fun</i>).	dolphin, alphabet, phonics, elephant when, where, which, wheel, while
Using k for the /k/ sound	The /k/ sound is spelt as k rather than as c before e, i and y .	Kent, sketch, kit, skin, frisky
Adding the prefix –un	The prefix un– is added to the beginning of a word without any change to the spelling of the root word.	unhappy, undo, unload, unfair, unlock
Compound words	Compound words are two words joined together. Each part of the longer word is spelt as it would be if it were on its own.	football, playground, farmyard, bedroom, blackberry
Common exception words	Pupils’ attention should be drawn to the grapheme-phoneme correspondences that do and do not fit in with what has been taught so far.	the, a, do, to, today, of, said, says, are, were, was, is, his, has, I, you, your, they, be, he, me, she, we, no, go, so, by, my, here, there, where, love, come, some, one, once, ask, friend, school, put, push, pull, full, house, our – and/or others, according to the programme used





Writing - Year 2 Programme of Study

Writing – handwriting

Statutory requirements

Pupils should be taught to:

- form lower-case letters of the correct size relative to one another
- start using some of the diagonal and horizontal strokes needed to join letters and understand which letters, when adjacent to one another, are best left unjoined
- write capital letters and digits of the correct size, orientation and relationship to one another and to lower case letters
- use spacing between words that reflects the size of the letters.

Notes and guidance (non-statutory)

Pupils should revise and practise correct letter formation frequently. They should be taught to write with a joined style as soon as they can form letters securely with the correct orientation.

Writing – composition

Statutory requirements

Pupils should be taught to:

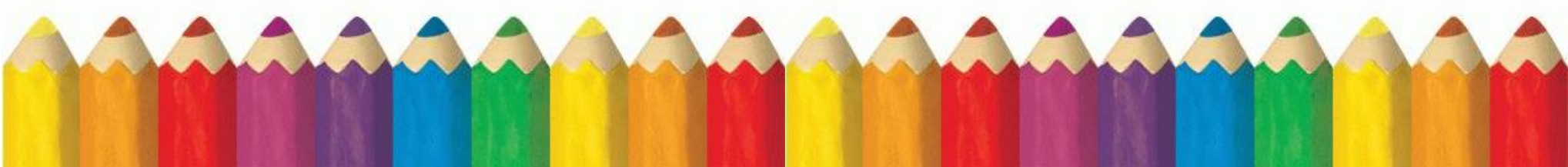
- develop positive attitudes towards and stamina for writing by:
 - writing narratives about personal experiences and those of others (real and fictional)
 - writing about real events
 - writing poetry
 - writing for different purposes
- consider what they are going to write before beginning by:
 - planning or saying out loud what they are going to write about
 - writing down ideas and/or key words, including new vocabulary
 - encapsulating what they want to say, sentence by sentence
- make simple additions, revisions and corrections to their own writing by:
 - evaluating their writing with the teacher and other pupils
 - re-reading to check that their writing makes sense and that verbs to indicate time are used correctly and consistently, including verbs in the continuous form
 - proof-reading to check for errors in spelling, grammar and punctuation [for example, ends of sentences punctuated correctly]
- read aloud what they have written with appropriate intonation to make the meaning clear.

Notes and guidance (non-statutory)

Reading and listening to whole books, not simply extracts, helps pupils to increase their vocabulary and grammatical knowledge, including their knowledge of the vocabulary and grammar of Standard English. These activities also help them to understand how different types of writing, including narratives, are structured. All these can be drawn on for their writing.

Pupils should understand, through being shown these, the skills and processes essential to writing: that is, thinking aloud as they collect ideas, drafting, and re-reading to check their meaning is clear.

Drama and role-play can contribute to the quality of pupils’ writing by providing opportunities for pupils to develop and order their ideas through playing roles and improvising scenes in various settings.





Notes and guidance (non-statutory)

Pupils might draw on and use new vocabulary from their reading, their discussions about it (one-to-one and as a whole class) and from their wider experiences.

Writing – vocabulary, grammar and punctuation

Statutory requirements

Pupils should be taught to:

- develop their understanding of the concepts set out in [English Appendix 2](#) by:
 - learning how to use both familiar and new punctuation correctly (see English Appendix 2), including full stops, capital letters, exclamation marks, question marks, commas for lists and apostrophes for contracted forms and the possessive (singular)
- learn how to use:
 - sentences with different forms: statement, question, exclamation, command
 - expanded noun phrases to describe and specify [for example, the blue butterfly]
 - the present and past tenses correctly and consistently including the progressive form
 - subordination (using when, if, that, or because) and co-ordination (using or, and, or but)
 - the grammar for year 2 in English Appendix 2
 - some features of written Standard English
- use and understand the grammatical terminology in English Appendix 2 in discussing their writing.

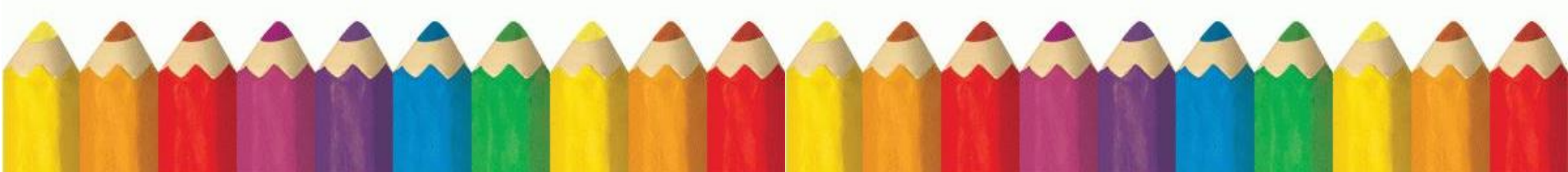
Notes and guidance (non-statutory)

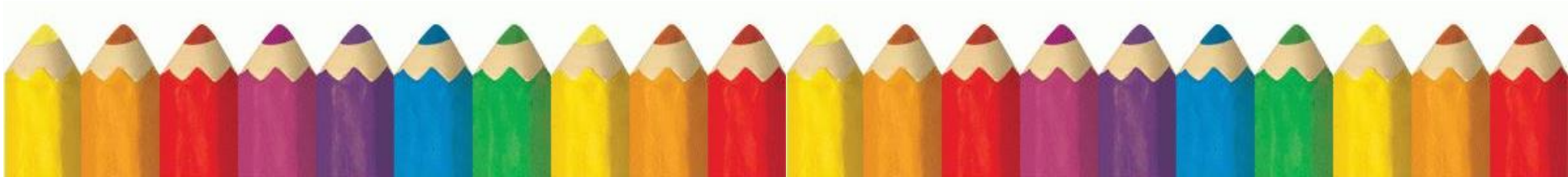
The terms for discussing language should be embedded for pupils in the course of discussing their writing with them. Their attention should be drawn to the technical terms they need to learn.

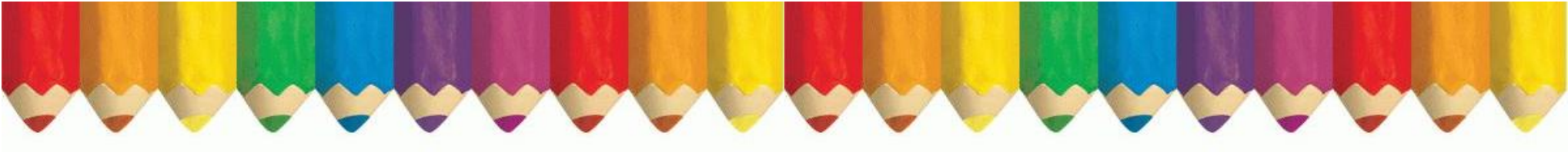
Vocabulary, grammar and punctuation – Years 1 to 6

Year 2: Detail of content to be introduced (statutory requirement)

Word	Formation of nouns using suffixes such as <i>–ness</i> , <i>–er</i> and by compounding [for example, <i>whiteboard</i> , <i>superman</i>] Formation of adjectives using suffixes such as <i>–ful</i> , <i>–less</i> (A fuller list of suffixes can be found on page 175 in the year 2 spelling section in English Appendix 1) Use of the suffixes <i>–er</i> , <i>–est</i> in adjectives and the use of <i>–ly</i> in Standard English to turn adjectives into adverbs
Sentence	Subordination (using <i>when</i> , <i>if</i> , <i>that</i> , <i>because</i>) and co-ordination (using <i>or</i> , <i>and</i> , <i>but</i>) Expanded noun phrases for description and specification [for example, <i>the blue butterfly</i> , <i>plain flour</i> , <i>the man in the moon</i>] How the grammatical patterns in a sentence indicate its function as a statement, question, exclamation or command
Text	Correct choice and consistent use of present tense and past tense throughout writing Use of the progressive form of verbs in the present and past tense to mark actions in progress [for example, <i>she is drumming</i> , <i>he was shouting</i>]
Punctuation	Use of capital letters, full stops, question marks and exclamation marks to demarcate sentences Commas to separate items in a list Apostrophes to mark where letters are missing in spelling and to mark singular possession in nouns [for example, <i>the girl’s name</i>]
Terminology for pupils	noun, noun phrase statement, question, exclamation, command, compound, adjective, verb, suffix adverb tense (past, present) apostrophe, comma







Spelling – work for year 2

Revision of work from year 1

As words with new GPCs are introduced, many previously-taught GPCs can be revised at the same time as these words will usually contain them.

New work for year 2

Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
The /dʒ/ sound spelt as ge and dge at the end of words, and sometimes spelt as g elsewhere in words before e, i and y	The letter j is never used for the /dʒ/ sound at the end of English words. At the end of a word, the /dʒ/ sound is spelt – dge straight after the /æ/, /ɛ/, /ɪ/, /ɒ/, /ʌ/ and /ʊ/ sounds (sometimes called ‘short’ vowels). After all other sounds, whether vowels or consonants, the /dʒ/ sound is spelt as – ge at the end of a word. In other positions in words, the /dʒ/ sound is often (but not always) spelt as g before e, i, and y. The /dʒ/ sound is always spelt as j before a, o and u.	badge, edge, bridge, dodge, fudge age, huge, change, charge, bulge, village gem, giant, magic, giraffe, energy jacket, jar, jog, join, adjust
The /s/ sound spelt c before e, i and y		race, ice, cell, city, fancy
The /n/ sound spelt kn and (less often) gn at the beginning of words	The ‘k’ and ‘g’ at the beginning of these words was sounded hundreds of years ago.	knock, know, knee, gnat, gnaw
The /r/ sound spelt wr at the beginning of words	This spelling probably also reflects an old pronunciation.	write, written, wrote, wrong, wrap
The /l/ or /əl/ sound spelt –le at the end of words	The – le spelling is the most common spelling for this sound at the end of words.	table, apple, bottle, little, middle

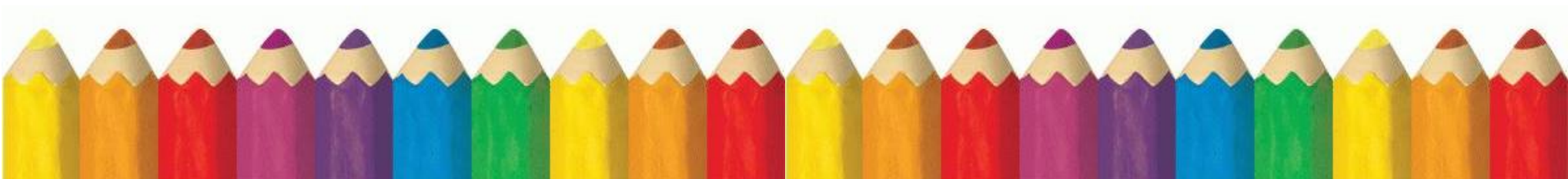
Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
The /l/ or /əl/ sound spelt –el at the end of words	The – el spelling is much less common than – le . The – el spelling is used after m, n, r, s, v, w and more often than not after s .	camel, tunnel, squirrel, travel, towel, tinsel
The /l/ or /əl/ sound spelt –al at the end of words	Not many nouns end in – al , but many adjectives do.	metal, pedal, capital, hospital, animal
Words ending –il	There are not many of these words.	pencil, fossil, nostril
The /aɪ/ sound spelt –y at the end of words	This is by far the most common spelling for this sound at the end of words.	cry, fly, dry, try, reply, July
Adding –es to nouns and verbs ending in –y	The y is changed to i before – es is added.	flies, tries, replies, copies, babies, carries
Adding –ed, –ing, –er and –est to a root word	The y is changed to i before – ed , – er and – est are added, but not before – ing as this	copied, copier, happier, happiest, cried, replied ... but copying, crying, replying

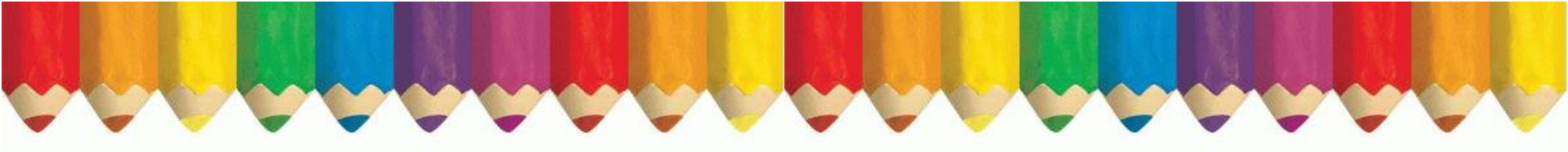




Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
ending in –y with a consonant before it	would result in ii . The only ordinary words with ii are <i>skiing</i> and <i>taxiing</i> .	
Adding the endings –ing, –ed, –er, –est and –y to words ending in –e with a consonant before it	The –e at the end of the root word is dropped before –ing , –ed , –er , –est , –y or any other suffix beginning with a vowel letter is added. Exception: <i>being</i> .	hiking, hiked, hiker, nicer, nicest, shiny
Adding –ing, –ed, –er, –est and –y to words of one syllable ending in a single consonant letter after a single vowel letter	The last consonant letter of the root word is doubled to keep the /æ/, /ɛ/, /ɪ/, /ɒ/ and /ʌ/ sound (i.e. to keep the vowel ‘short’). Exception: The letter ‘x’ is never doubled: <i>mixing</i> , <i>mixed</i> , <i>boxer</i> , <i>sixes</i> .	patting, patted, humming, hummed, dropping, dropped, sadder, saddest, fatter, fattest, runner, runny
The /ɔ:/ sound spelt a before l and ll	The /ɔ:/ sound (‘or’) is usually spelt as a before l and ll .	all, ball, call, walk, talk, always
The /ʌ/ sound spelt o		other, mother, brother, nothing, Monday

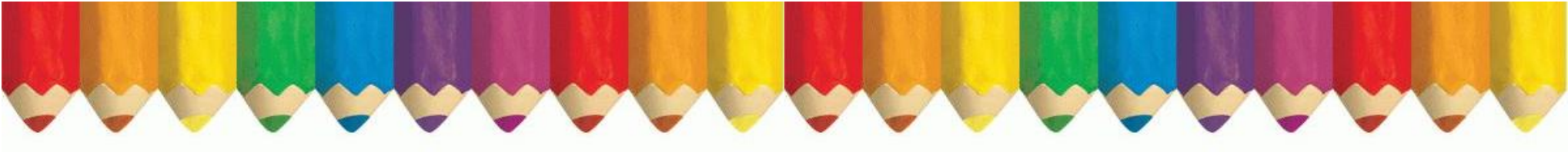
Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
The /i:/ sound spelt –ey	The plural of these words is formed by the addition of –s (<i>donkeys</i> , <i>monkeys</i> , etc.).	key, donkey, monkey, chimney, valley
The /ɒ/ sound spelt a after w and qu	a is the most common spelling for the /ɒ/ (‘hot’) sound after w and qu .	want, watch, wander, quantity, squash
The /ɜ:/ sound spelt or after w	There are not many of these words.	word, work, worm, world, worth
The /ɔ:/ sound spelt ar after w	There are not many of these words.	war, warm, towards
The /ʒ/ sound spelt s		television, treasure, usual
The suffixes –ment, –ness, –ful, –less and –ly	If a suffix starts with a consonant letter, it is added straight on to most root words without any change to the last letter of those words. Exceptions: (1) <i>argument</i> (2) root words ending in –y with a consonant before it but only if the root word has more than one syllable.	enjoyment, sadness, careful, playful, hopeless, plainness (plain + ness), badly merriment, happiness, plentiful, penniless, happily
Contractions	In contractions, the apostrophe shows where a letter or letters would be if the words were written in full (e.g. <i>can’t</i> – <i>cannot</i>). <i>It’s</i> means <i>it is</i> (e.g. <i>It’s</i> raining) or sometimes <i>it has</i> (e.g. <i>It’s</i> been raining), but <i>it’s</i> is never used for the possessive.	can’t, didn’t, hasn’t, couldn’t, it’s, I’ll
The possessive apostrophe (singular nouns)		Megan’s, Ravi’s, the girl’s, the child’s, the man’s
Words ending in –tion		station, fiction, motion, national, section





Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
Homophones and near-homophones	It is important to know the difference in meaning between homophones.	there/their/they're, here/hear, quite/quiet, see/sea, bare/bear, one/won, sun/son, to/too/two, be/bee, blue/blew, night/knight
Common exception words	<p>Some words are exceptions in some accents but not in others – e.g. <i>past</i>, <i>last</i>, <i>fast</i>, <i>path</i> and <i>bath</i> are not exceptions in accents where the a in these words is pronounced /æ/, as in <i>cat</i>.</p> <p><i>Great</i>, <i>break</i> and <i>steak</i> are the only common words where the /eɪ/ sound is spelt ea.</p>	<p>door, floor, poor, because, find, kind, mind, behind, child, children*, wild, climb, most, only, both, old, cold, gold, hold, told, every, everybody, even, great, break, steak, pretty, beautiful, after, fast, last, past, father, class, grass, pass, plant, path, bath, hour, move, prove, improve, sure, sugar, eye, could, should, would, who, whole, any, many, clothes, busy, people, water, again, half, money, Mr, Mrs, parents, Christmas – and/or others according to programme used.</p> <p>Note: 'children' is not an exception to what has been taught so far but is included because of its relationship with 'child'.</p>





Writing - Year 3 & 4 Programme of Study

Writing – transcription

Statutory requirements

Spelling (see [English Appendix 1](#))

Pupils should be taught to:

- use further prefixes and suffixes and understand how to add them (English Appendix 1)
- spell further homophones
- spell words that are often misspelt (English Appendix 1)
- place the possessive apostrophe accurately in words with regular plurals [for example, girls’, boys’] and in words with irregular plurals [for example, children’s]
- use the first two or three letters of a word to check its spelling in a dictionary
- write from memory simple sentences, dictated by the teacher, that include words and punctuation taught so far.

Notes and guidance (non-statutory)

Spelling

Pupils should learn to spell new words correctly and have plenty of practice in spelling them.

As in years 1 and 2, pupils should continue to be supported in understanding and applying the concepts of word structure (see [English Appendix 2](#)).

Pupils need sufficient knowledge of spelling in order to use dictionaries efficiently.

Writing – handwriting

Statutory requirements

Pupils should be taught to:

- use the diagonal and horizontal strokes that are needed to join letters and understand which letters, when adjacent to one another, are best left unjoined
- increase the legibility, consistency and quality of their handwriting [for example, by ensuring that the downstrokes of letters are parallel and equidistant; that lines of writing are spaced sufficiently so that the ascenders and descenders of letters do not touch].

Notes and guidance (non-statutory)

Pupils should be using joined handwriting throughout their independent writing. Handwriting should continue to be taught, with the aim of increasing the fluency with which pupils are able to write down what they want to say. This, in turn, will support their composition and spelling.





Writing – composition

Statutory requirements

Pupils should be taught to:

- plan their writing by:
 - discussing writing similar to that which they are planning to write in order to understand and learn from its structure, vocabulary and grammar
 - discussing and recording ideas
- draft and write by:
 - composing and rehearsing sentences orally (including dialogue), progressively building a varied and rich vocabulary and an increasing range of sentence structures ([English Appendix 2](#))
 - organising paragraphs around a theme
 - in narratives, creating settings, characters and plot
 - in non-narrative material, using simple organisational devices [for example, headings and sub-headings]
- evaluate and edit by:
 - assessing the effectiveness of their own and others’ writing and suggesting improvements
 - proposing changes to grammar and vocabulary to improve consistency, including the accurate use of pronouns in sentences
- proof-read for spelling and punctuation errors
- read aloud their own writing, to a group or the whole class, using appropriate intonation and controlling the tone and volume so that the meaning is clear.

Notes and guidance (non-statutory)

Pupils should continue to have opportunities to write for a range of real purposes and audiences as part of their work across the curriculum. These purposes and audiences should underpin the decisions about the form the writing should take, such as a narrative, an explanation or a description.

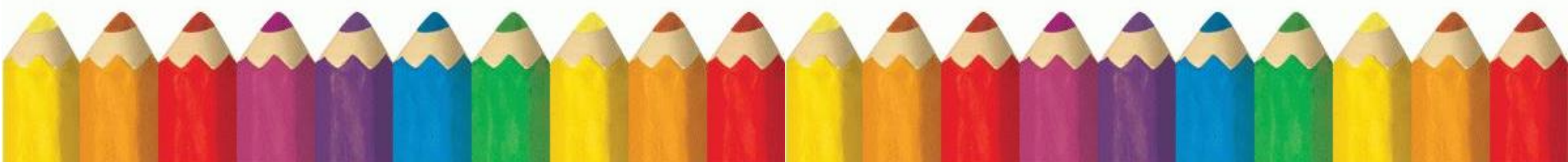
Pupils should understand, through being shown these, the skills and processes that are essential for writing: that is, thinking aloud to explore and collect ideas, drafting, and re-reading to check their meaning is clear, including doing so as the writing develops. Pupils should be taught to monitor whether their own writing makes sense in the same way that they monitor their reading, checking at different levels.

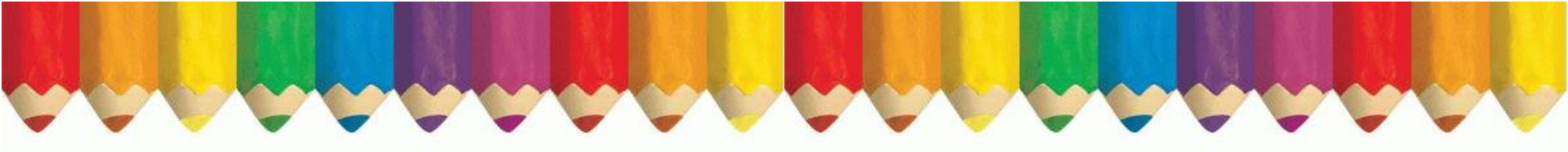
Writing – vocabulary, grammar and punctuation

Statutory requirements

Pupils should be taught to:

- develop their understanding of the concepts set out in [English Appendix 2](#) by:
 - extending the range of sentences with more than one clause by using a wider range of conjunctions, including when, if, because, although
 - using the present perfect form of verbs in contrast to the past tense
 - choosing nouns or pronouns appropriately for clarity and cohesion and to avoid repetition
 - using conjunctions, adverbs and prepositions to express time and cause
 - using fronted adverbials
 - learning the grammar for years 3 and 4 in English Appendix 2
- indicate grammatical and other features by:
 - using commas after fronted adverbials
 - indicating possession by using the possessive apostrophe with plural nouns
 - using and punctuating direct speech





Statutory requirements

- use and understand the grammatical terminology in English Appendix 2 accurately and appropriately when discussing their writing and reading.

Notes and guidance (non-statutory)

Grammar should be taught explicitly: pupils should be taught the terminology and concepts set out in English Appendix 2, and be able to apply them correctly to examples of real language, such as their own writing or books that they have read.

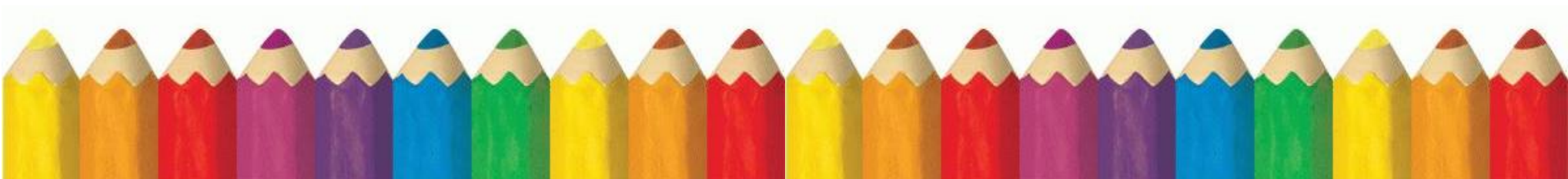
At this stage, pupils should start to learn about some of the differences between Standard English and non-Standard English and begin to apply what they have learnt [for example, in writing dialogue for characters].

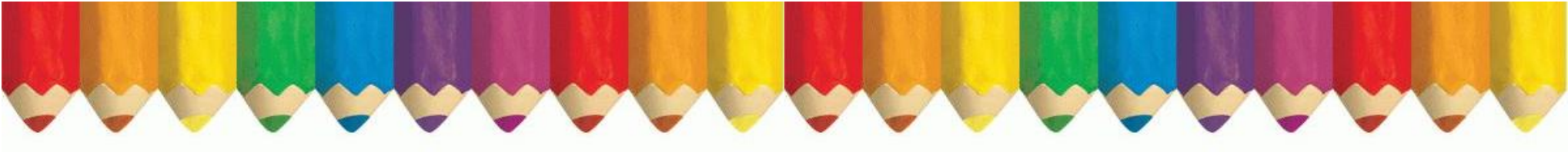
Year 3: Detail of content to be introduced (statutory requirement)

Word	Formation of nouns using a range of prefixes [for example <i>super-</i> , <i>anti-</i> , <i>auto-</i>] Use of the forms <i>a</i> or <i>an</i> according to whether the next word begins with a consonant or a vowel [for example, <i>a</i> rock, <i>an</i> open box] Word families based on common words , showing how words are related in form and meaning [for example, <i>solve</i> , <i>solution</i> , <i>solver</i> , <i>dissolve</i> , <i>insoluble</i>]
Sentence	Expressing time, place and cause using conjunctions [for example, <i>when</i> , <i>before</i> , <i>after</i> , <i>while</i> , <i>so</i> , <i>because</i>], adverbs [for example, <i>then</i> , <i>next</i> , <i>soon</i> , <i>therefore</i>], or prepositions [for example, <i>before</i> , <i>after</i> , <i>during</i> , <i>in</i> , <i>because of</i>]
Text	Introduction to paragraphs as a way to group related material Headings and sub-headings to aid presentation Use of the present perfect form of verbs instead of the simple past [for example, <i>He has gone out to play</i> contrasted with <i>He went out to play</i>]
Punctuation	Introduction to inverted commas to punctuate direct speech
Terminology for pupils	adverb, preposition conjunction word family, prefix clause, subordinate clause direct speech consonant, consonant letter vowel, vowel letter inverted commas (or 'speech marks')

Year 4: Detail of content to be introduced (statutory requirement)

Word	The grammatical difference between plural and possessive -s Standard English forms for verb inflections instead of local spoken forms [for example, <i>we were</i> instead of <i>we was</i> , or <i>I did</i> instead of <i>I done</i>]
Sentence	Noun phrases expanded by the addition of modifying adjectives, nouns and preposition phrases (e.g. <i>the teacher</i> expanded to: <i>the strict maths teacher with curly hair</i>) Fronted adverbials [for example, <i>Later that day</i> , <i>I heard the bad news.</i>]
Text	Use of paragraphs to organise ideas around a theme Appropriate choice of pronoun or noun within and across sentences to aid cohesion and avoid repetition
Punctuation	Use of inverted commas and other punctuation to indicate direct speech [for example, a comma after the reporting clause; end punctuation within inverted commas: <i>The conductor shouted, "Sit down!"</i>] Apostrophes to mark plural possession [for example, <i>the girl's name</i> , <i>the girls' names</i>] Use of commas after fronted adverbials
Terminology for pupils	determiner pronoun, possessive pronoun adverbial





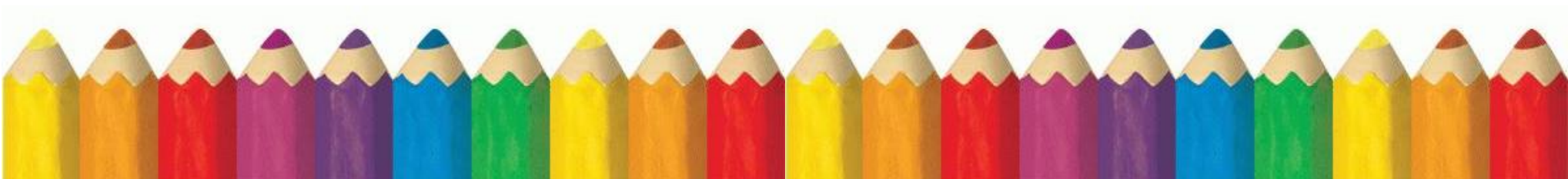
Spelling – work for years 3 and 4

Revision of work from years 1 and 2

Pay special attention to the rules for adding suffixes.

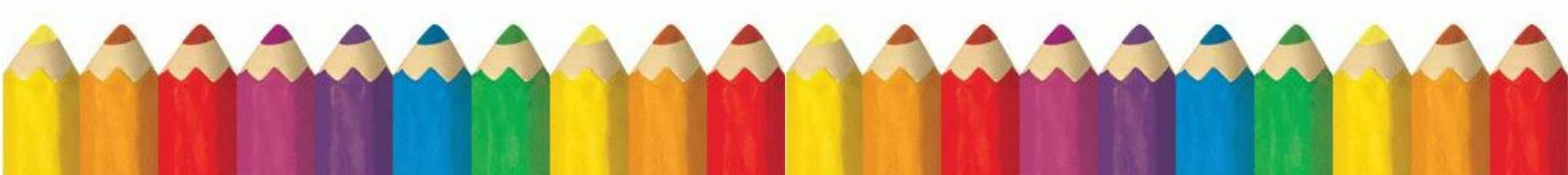
New work for years 3 and 4

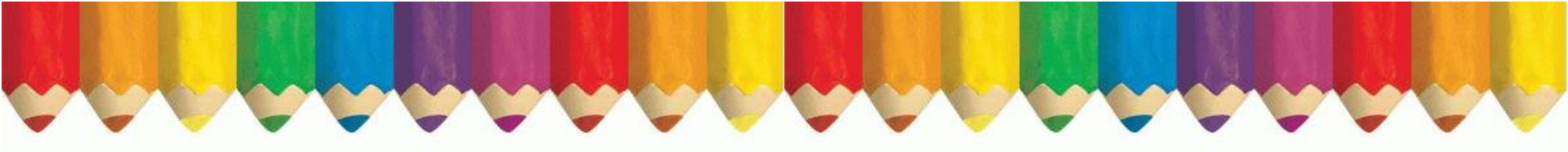
Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
Adding suffixes beginning with vowel letters to words of more than one syllable	If the last syllable of a word is stressed and ends with one consonant letter which has just one vowel letter before it, the final consonant letter is doubled before any ending beginning with a vowel letter is added. The consonant letter is not doubled if the syllable is unstressed.	forgetting, forgotten, beginning, beginner, prefer, preferred gardening, gardener, limiting, limited, limitation
The /ɪ/ sound spelt y elsewhere than at the end of words	These words should be learnt as needed.	myth, gym, Egypt, pyramid, mystery
The /ʌ/ sound spelt ou	These words should be learnt as needed.	young, touch, double, trouble, country
More prefixes	Most prefixes are added to the beginning of root words without any changes in spelling, but see in– below. Like un– , the prefixes dis– and mis– have negative meanings. The prefix in– can mean both ‘not’ and ‘in’/‘into’. In the words given here it means ‘not’.	dis– : disappoint, disagree, disobey mis– : misbehave, mislead, misspell (mis + spell) in– : inactive, incorrect
Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
	Before a root word starting with l , in– becomes il . Before a root word starting with m or p , in– becomes im– . Before a root word starting with r , in– becomes ir– . re– means ‘again’ or ‘back’. sub– means ‘under’. inter– means ‘between’ or ‘among’. super– means ‘above’. anti– means ‘against’. auto– means ‘self’ or ‘own’.	illegal, illegible immature, immortal, impossible, impatient, imperfect irregular, irrelevant, irresponsible re– : redo, refresh, return, reappear, redecorate sub– : subdivide, subheading, submarine, submerge inter– : interact, intercity, international, interrelated (inter + related) super– : supermarket, superman, superstar anti– : antiseptic, anti-clockwise, antisocial auto– : autobiography, autograph
The suffix –ation	The suffix –ation is added to verbs to form nouns. The rules already learnt still apply.	information, adoration, sensation, preparation, admiration
The suffix –ly	The suffix –ly is added to an adjective to form an adverb. The rules already learnt still apply. The suffix –ly starts with a consonant letter, so it is added straight on to most root words.	sadly, completely, usually (usual + ly), finally (final + ly), comically (comical + ly)





Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
	Exceptions: (1) If the root word ends in –y with a consonant letter before it, the y is changed to i , but only if the root word has more than one syllable. (2) If the root word ends with – le , the – le is changed to – ly . (3) If the root word ends with – ic , – ally is added rather than just – ly , except in the word <i>publicly</i> . (4) The words <i>truly, duly, wholly</i> .	happily, angrily gently, simply, humbly, nobly basically, frantically, dramatically
Words with endings sounding like /ʒə/ or /tʃə/	The ending sounding like /ʒə/ is always spelt – sure . The ending sounding like /tʃə/ is often spelt – ture , but check that the word is not a root word ending in (t)ch with an er ending – e.g. <i>teacher, catcher, richer, stretcher</i> .	measure, treasure, pleasure, enclosure creature, furniture, picture, nature, adventure
Endings which sound like /ʒən/	If the ending sounds like /ʒən/, it is spelt as – sion .	division, invasion, confusion, decision, collision, television
The suffix –ous	Sometimes the root word is obvious and the usual rules apply for adding suffixes beginning with vowel letters. Sometimes there is no obvious root word. – our is changed to – or before – ous is added. A final ‘e’ of the root word must be kept if the /dʒ/ sound of ‘g’ is to be kept. If there is an /i:/ sound before the – ous ending, it is usually spelt as i , but a few words have e .	poisonous, dangerous, mountainous, famous, various tremendous, enormous, jealous humorous, glamorous, vigorous courageous, outrageous serious, obvious, curious hideous, spontaneous, courteous

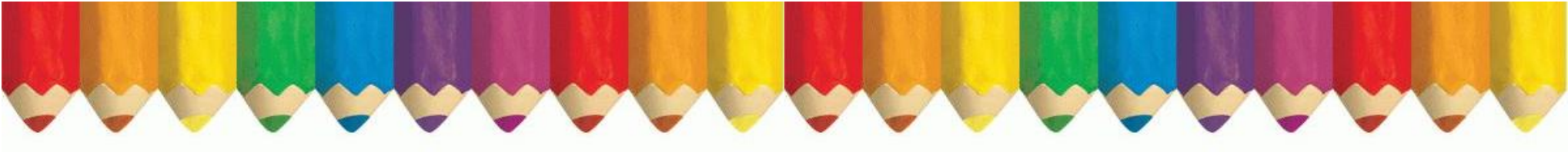




Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
Endings which sound like /ʃən/, spelt –tion, –sion, –ssion, –cian	Strictly speaking, the suffixes are –ion and –ian . Clues about whether to put t , s , ss or c before these suffixes often come from the last letter or letters of the root word. –tion is the most common spelling. It is used if the root word ends in t or te . –ssion is used if the root word ends in ss or –mit . –sion is used if the root word ends in d or se . Exceptions: <i>attend – attention, intend – intention</i> . –cian is used if the root word ends in c or cs .	invention, injection, action, hesitation, completion expression, discussion, confession, permission, admission expansion, extension, comprehension, tension musician, electrician, magician, politician, mathematician
Words with the /k/ sound spelt ch (Greek in origin)		scheme, chorus, chemist, echo, character
Words with the /ʃ/ sound spelt ch (mostly French in origin)		chef, chalet, machine, brochure
Words ending with the /g/ sound spelt –gue and the /k/ sound spelt –que (French in origin)		league, tongue, antique, unique
Words with the /s/ sound spelt sc (Latin in origin)	In the Latin words from which these words come, the Romans probably pronounced the c and the k as two sounds rather than one – /s/ /k/.	science, scene, discipline, fascinate, crescent
Words with the /eɪ/ sound spelt ei, eigh, or ey		vein, weigh, eight, neighbour, they, obey

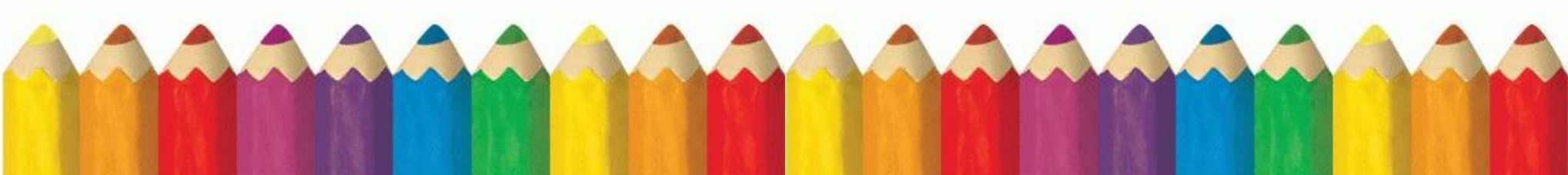
Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
Possessive apostrophe with plural words	The apostrophe is placed after the plural form of the word; –s is not added if the plural already ends in –s , but <i>is</i> added if the plural does not end in –s (i.e. is an irregular plural – e.g. <i>children’s</i>).	girls’, boys’, babies’, children’s, men’s, mice’s (Note: singular proper nouns ending in an <i>s</i> use the ‘s suffix e.g. Cyprus’s population)
Homophones and near-homophones		accept/except, affect/effect, ball/bawl, berry/bury, brake/break, fair/fare, grate/great, groan/grown, here/hear, heel/heal/he’ll, knot/not, mail/male, main/mane, meat/meet, medal/meddle, missed/mist, peace/piece, plain/plane, rain/rein/reign, scene/seen, weather/whether, whose/who’s





Word list – years 3 and 4

accident(ally)	disappear	interest	pressure
actual(ly)	early	island	probably
address	earth	knowledge	promise
answer	eight/eighth	learn	purpose
appear	enough	length	quarter
arrive	exercise	library	question
believe	experience	material	recent
bicycle	experiment	medicine	regular
breath	extreme	mention	reign
breathe	famous	minute	remember
build	favourite	natural	sentence
busy/business	February	naughty	separate
calendar	forward(s)	notice	special
caught	fruit	occasion(ally)	straight
centre	grammar	often	strange
century	group	opposite	strength
certain	guard	ordinary	suppose
circle	guide	particular	surprise
complete	heard	peculiar	therefore
consider	heart	perhaps	though/although
continue	height	popular	thought
decide	history	position	through
describe	imagine	possess(ion)	various
different	increase	possible	weight
difficult	important	potatoes	woman/women





Writing - Year 5 & 6 Programme of Study

Writing – transcription

Statutory requirements

Spelling (see [English Appendix 1](#))

Pupils should be taught to:

- use further prefixes and suffixes and understand the guidance for adding them
- spell some words with ‘silent’ letters [for example, knight, psalm, solemn]
- continue to distinguish between homophones and other words which are often confused
- use knowledge of morphology and etymology in spelling and understand that the spelling of some words needs to be learnt specifically, as listed in English Appendix 1
- use dictionaries to check the spelling and meaning of words
- use the first three or four letters of a word to check spelling, meaning or both of these in a dictionary
- use a thesaurus.

Notes and guidance (non-statutory)

Spelling

As in earlier years, pupils should continue to be taught to understand and apply the concepts of word structure so that they can draw on their knowledge of morphology and etymology to spell correctly.

Writing – handwriting and presentation

Statutory requirements

Pupils should be taught to:

- write legibly, fluently and with increasing speed by:
 - choosing which shape of a letter to use when given choices and deciding whether or not to join specific letters
 - choosing the writing implement that is best suited for a task.

Notes and guidance (non-statutory)

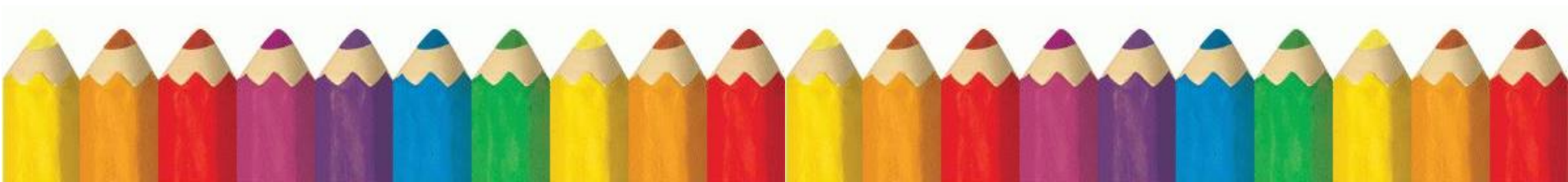
Pupils should continue to practise handwriting and be encouraged to increase the speed of it, so that problems with forming letters do not get in the way of their writing down what they want to say. They should be clear about what standard of handwriting is appropriate for a particular task, for example, quick notes or a final handwritten version. They should also be taught to use an unjoined style, for example, for labelling a diagram or data, writing an email address, or for algebra and capital letters, for example, for filling in a form.

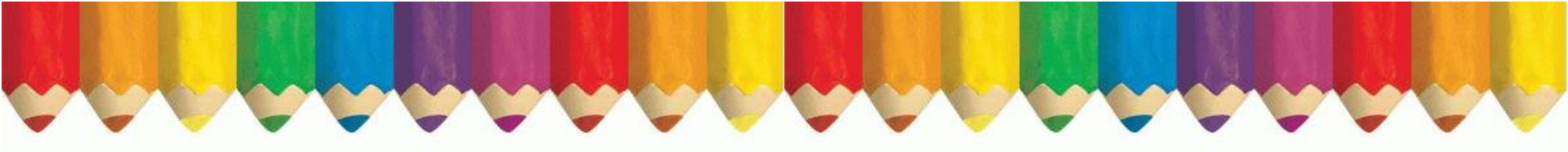
Writing – composition

Statutory requirements

Pupils should be taught to:

- plan their writing by:
 - identifying the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own
 - noting and developing initial ideas, drawing on reading and research where necessary





Statutory requirements

- in writing narratives, considering how authors have developed characters and settings in what pupils have read, listened to or seen performed
 - draft and write by:
 - selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning
 - in narratives, describing settings, characters and atmosphere and integrating dialogue to convey character and advance the action
 - précising longer passages
 - using a wide range of devices to build cohesion within and across paragraphs
 - using further organisational and presentational devices to structure text and to guide the reader [for example, headings, bullet points, underlining]
 - evaluate and edit by:
 - assessing the effectiveness of their own and others' writing
 - proposing changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning
 - ensuring the consistent and correct use of tense throughout a piece of writing
 - ensuring correct subject and verb agreement when using singular and plural, distinguishing between the language of speech and writing and choosing the appropriate register
 - proof-read for spelling and punctuation errors
- perform their own compositions, using appropriate intonation, volume, and movement so that meaning is clear.

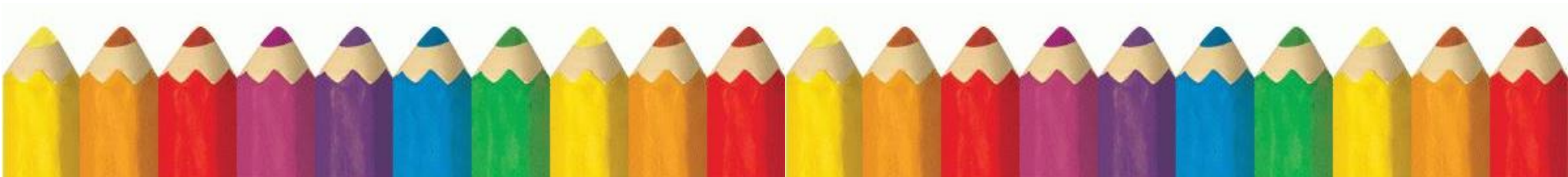
Notes and guidance (non-statutory)

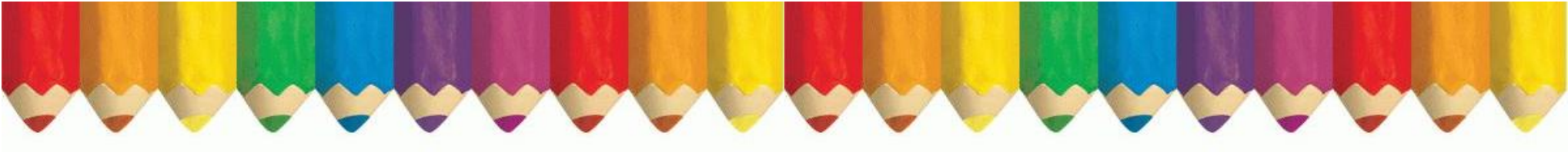
Pupils should understand, through being shown, the skills and processes essential for writing: that is, thinking aloud to generate ideas, drafting, and re-reading to check that the meaning is clear.

Writing – vocabulary, grammar and punctuation

Statutory requirements

- Pupils should be taught to:
- develop their understanding of the concepts set out in [English Appendix 2](#) by:
 - recognising vocabulary and structures that are appropriate for formal speech and writing, including subjunctive forms
 - using passive verbs to affect the presentation of information in a sentence
 - using the perfect form of verbs to mark relationships of time and cause
 - using expanded noun phrases to convey complicated information concisely
 - using modal verbs or adverbs to indicate degrees of possibility
 - using relative clauses beginning with who, which, where, when, whose, that or with an implied (i.e. omitted) relative pronoun
 - learning the grammar for years 5 and 6 in English Appendix 2
 - indicate grammatical and other features by:
 - using commas to clarify meaning or avoid ambiguity in writing
 - using hyphens to avoid ambiguity
 - using brackets, dashes or commas to indicate parenthesis
 - using semi-colons, colons or dashes to mark boundaries between independent clauses
 - using a colon to introduce a list
 - punctuating bullet points consistently
 - use and understand the grammatical terminology in English Appendix 2 accurately and appropriately in discussing their writing and reading.





Notes and guidance (non-statutory)

Pupils should continue to add to their knowledge of linguistic terms, including those to describe grammar, so that they can discuss their writing and reading.

Year 5: Detail of content to be introduced (statutory requirement)

Word	Converting nouns or adjectives into verbs using suffixes [for example, <i>–ate; –ise; –ify</i>] Verb prefixes [for example, <i>dis–, de–, mis–, over– and re–</i>]
Sentence	Relative clauses beginning with <i>who, which, where, when, whose, that</i> , or an omitted relative pronoun Indicating degrees of possibility using adverbs [for example, <i>perhaps, surely</i>] or modal verbs [for example, <i>might, should, will, must</i>]
Text	Devices to build cohesion within a paragraph [for example, <i>then, after that, this, firstly</i>] Linking ideas across paragraphs using adverbials of time [for example, <i>later</i>], place [for example, <i>nearby</i>] and number [for example, <i>secondly</i>] or tense choices [for example, he <i>had</i> seen her before]
Punctuation	Brackets, dashes or commas to indicate parenthesis Use of commas to clarify meaning or avoid ambiguity
Terminology for pupils	modal verb, relative pronoun relative clause parenthesis, bracket, dash cohesion, ambiguity

Year 6: Detail of content to be introduced (statutory requirement)

Word	The difference between vocabulary typical of informal speech and vocabulary appropriate for formal speech and writing [for example, <i>find out – discover; ask for – request; go in – enter</i>] How words are related by meaning as synonyms and antonyms [for example, <i>big, large, little</i>].
Sentence	Use of the passive to affect the presentation of information in a sentence [for example, <i>I broke the window in the greenhouse</i> versus <i>The window in the greenhouse was broken (by me)</i>]. The difference between structures typical of informal speech and structures appropriate for formal speech and writing [for example, the use of question tags: <i>He’s your friend, isn’t he?</i> , or the use of subjunctive forms such as <i>If I <u>were</u></i> or <i><u>Were they</u> to come</i> in some very formal writing and speech]
Text	Linking ideas across paragraphs using a wider range of cohesive devices : repetition of a word or phrase, grammatical connections [for example, the use of adverbials such as <i>on the other hand, in contrast, or as a consequence</i>], and ellipsis Layout devices [for example, headings, sub-headings, columns, bullets, or tables, to structure text]
Punctuation	Use of the semi-colon, colon and dash to mark the boundary between independent clauses [for example, <i>It’s raining; I’m fed up</i>] Use of the colon to introduce a list and use of semi-colons within lists Punctuation of bullet points to list information How hyphens can be used to avoid ambiguity [for example, <i>man eating shark</i> versus <i>man-eating shark</i> , or <i>recover</i> versus <i>re-cover</i>]
Terminology for pupils	subject, object active, passive synonym, antonym ellipsis, hyphen, colon, semi-colon, bullet points





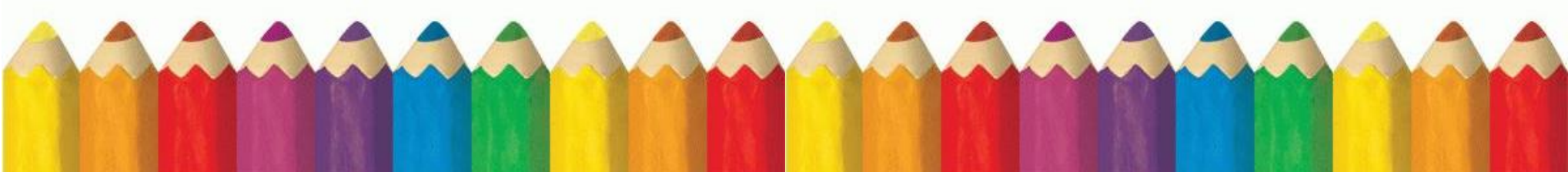
Year 6: Detail of content to be introduced (statutory requirement)

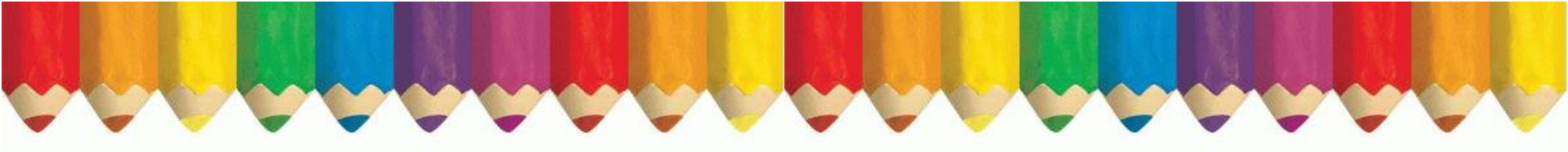
Spelling – years 5 and 6

Revise work done in previous years

New work for years 5 and 6

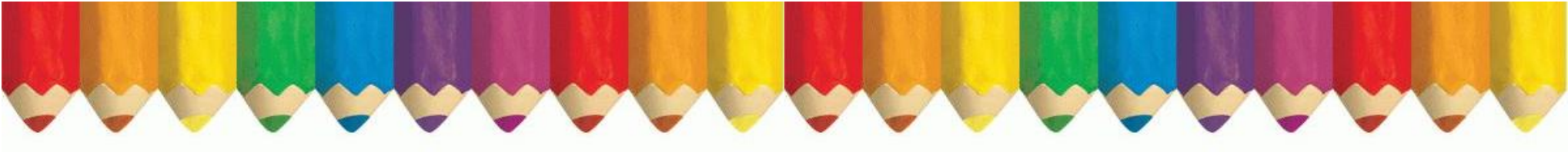
Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
Endings which sound like /ʃəs/ spelt –cious or –tious	Not many common words end like this. If the root word ends in –ce, the /ʃ/ sound is usually spelt as c – e.g. vice – vicious, grace – gracious, space – spacious, malice – malicious. Exception: anxious.	vicious, precious, conscious, delicious, malicious, suspicious ambitious, cautious, fictitious, infectious, nutritious
Endings which sound like /ʃəl/	–cial is common after a vowel letter and –tial after a consonant letter, but there are some exceptions. Exceptions: initial, financial, commercial, provincial (the spelling of the last three is clearly related to finance, commerce and province).	official, special, artificial, partial, confidential, essential
Words ending in –ant, –ance/–ancy, –ent, –ence/–ency	Use –ant and –ance/–ancy if there is a related word with a /æ/ or /eɪ/ sound in the right position; –ation endings are often a clue. Use –ent and –ence/–ency after soft c (/s/ sound), soft g (/dʒ/ sound) and qu, or if there is a related word with a clear /ɛ/ sound in the right position. There are many words, however, where the above guidance does not help. These words just have to be learnt.	observant, observance, (observat <u>ion</u>), expectant (expectat <u>ion</u>), hesitant, hesitancy (hesitat <u>ion</u>), tolerant, tolerance (tolerat <u>ion</u>), substance (subst <u>ant</u> ial) innocent, innocence, decent, decency, frequent, frequency, confident, confidence (confid <u>ent</u> ial) assistant, assistance, obedient, obedie <u>nce</u> , independent, independe <u>nce</u>
Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
Words ending in –able and –ible Words ending in –ably and –ibly	The –able/–ably endings are far more common than the –ible/–ibly endings. As with –ant and –ance/–ancy, the –able ending is used if there is a related word ending in –ation. If the –able ending is added to a word ending in –ce or –ge, the e after the c or g must be kept as those letters would otherwise have their ‘hard’ sounds (as in cap and gap) before the a of the –able ending. The –able ending is usually but not always used if a complete root word can be heard before it, even if there is no related word ending in –ation. The first five examples opposite are obvious; in reliable, the complete word rely is heard, but the y changes to i in accordance with the rule. The –ible ending is common if a complete root word can’t be heard before it but it also sometimes occurs when a complete word can be heard (e.g. sensible).	adorable/adorably (adorat <u>ion</u>), applicable/applicably (applicat <u>ion</u>), considerable/considerably (considerat <u>ion</u>), tolerable/tolerably (tolerat <u>ion</u>) changeable, noticeable, forcible, legible dependable, comfortable, understandable, reasonable, enjoyable, reliable possible/possibly, horrible/horribly, terrible/terribly, visible/visibly, incredible/incredibly, sensible/sensibly
Adding suffixes beginning with vowel letters to words ending in –fer	The r is doubled if the –fer is still stressed when the ending is added. The r is not doubled if the –fer is no longer stressed.	referring, referred, referral, preferring, preferred, transferring, transferred reference, referee, preference, transference
Use of the hyphen	Hyphens can be used to join a prefix to a root word, especially if the prefix ends in a vowel letter and the root word also begins with one.	co-ordinate, re-enter, co-operate, co-own





Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
Words with the /i:/ sound spelt ei after c	The 'i before e except after c' rule applies to words where the sound spelt by ei is /i:/. Exceptions: <i>protein, caffeine, seize</i> (and <i>either</i> and <i>neither</i> if pronounced with an initial /i:/ sound).	deceive, conceive, receive, perceive, ceiling
Words containing the letter-string ough	ough is one of the trickiest spellings in English – it can be used to spell a number of different sounds.	ought, bought, thought, nought, brought, fought rough, tough, enough cough though, although, dough through thorough, borough plough, bough
Words with 'silent' letters (i.e. letters whose presence cannot be predicted from the pronunciation of the word)	Some letters which are no longer sounded used to be sounded hundreds of years ago: e.g. in <i>knight</i> , there was a /k/ sound before the /n/, and the gh used to represent the sound that 'ch' now represents in the Scottish word <i>loch</i> .	doubt, island, lamb, solemn, thistle, knight



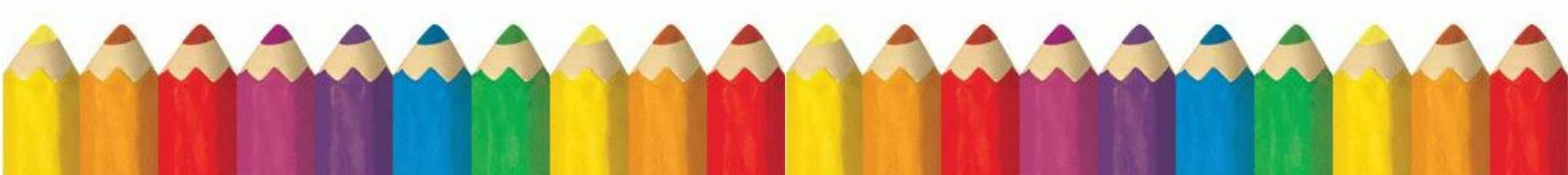


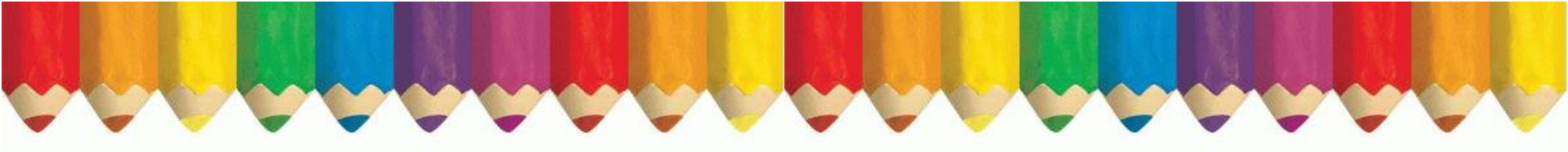
Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
Homophones and other words that are often confused	<p>In the pairs of words opposite, nouns end –ce and verbs end –se. <i>Advice</i> and <i>advise</i> provide a useful clue as the word <i>advise</i> (verb) is pronounced with a /z/ sound – which could not be spelt c.</p> <p><u>More examples:</u></p> <p>aisle: a gangway between seats (in a church, train, plane). isle: an island.</p> <p>aloud: out loud. allowed: permitted.</p> <p>affect: usually a verb (e.g. <i>The weather may affect our plans</i>). effect: usually a noun (e.g. <i>It may have an effect on our plans</i>). If a verb, it means ‘bring about’ (e.g. <i>He will effect changes in the running of the business</i>).</p> <p>altar: a table-like piece of furniture in a church. alter: to change.</p> <p>ascent: the act of ascending (going up). assent: to agree/agreement (verb and noun).</p> <p>bridal: to do with a bride at a wedding. bridle: reins etc. for controlling a horse.</p> <p>cereal: made from grain (e.g. breakfast cereal). serial: adjective from the noun <i>series</i> – a succession of things one after the other.</p> <p>compliment: to make nice remarks about someone (verb) or the remark that is made (noun). complement: related to the word <i>complete</i> – to make something complete or more complete (e.g. <i>her scarf complemented her outfit</i>).</p>	<p>advice/advise device/devise licence/license practice/practise prophecy/prophecy farther: further father: a male parent guessed: past tense of the verb <i>guess</i> guest: visitor heard: past tense of the verb <i>hear</i> herd: a group of animals led: past tense of the verb <i>lead</i> lead: present tense of that verb, or else the metal which is very heavy (<i>as heavy as lead</i>) morning: before noon mourning: grieving for someone who has died past: noun or adjective referring to a previous time (e.g. <i>In the past</i>) or preposition or adverb showing place (e.g. <i>he walked past me</i>) passed: past tense of the verb ‘pass’ (e.g. <i>I passed him in the road</i>) precede: go in front of or before proceed: go on</p>





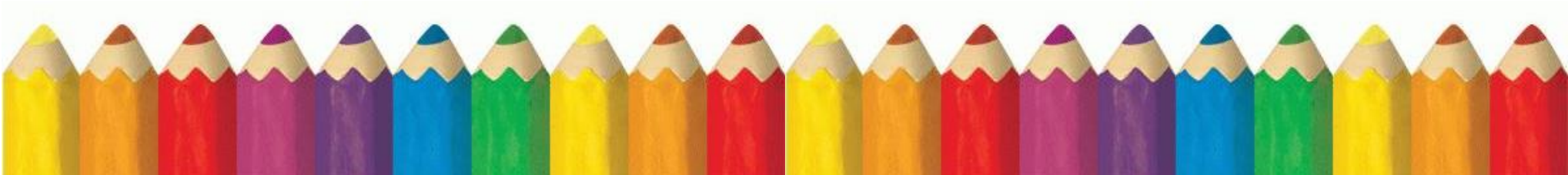
Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
Homophones and other words that are often confused (continued)	<p>descent: the act of descending (going down).</p> <p>dissent: to disagree/disagreement (verb and noun).</p> <p>desert: as a noun – a barren place (stress on first syllable); as a verb – to abandon (stress on second syllable)</p> <p>dessert: (stress on second syllable) a sweet course after the main course of a meal.</p> <p>draft: noun – a first attempt at writing something; verb – to make the first attempt; also, to draw in someone (e.g. <i>to draft in extra help</i>)</p> <p>draught: a current of air.</p>	<p>principal: adjective – most important (e.g. <i>principal ballerina</i>) noun – important person (e.g. <i>principal of a college</i>)</p> <p>principle: basic truth or belief</p> <p>profit: money that is made in selling things</p> <p>prophet: someone who foretells the future</p> <p>stationary: not moving</p> <p>stationery: paper, envelopes etc.</p> <p>steal: take something that does not belong to you</p> <p>steel: metal</p> <p>wary: cautious</p> <p>weary: tired</p> <p>who's: contraction of <i>who is</i> or <i>who has</i></p> <p>whose: belonging to someone (e.g. <i>Whose jacket is that?</i>)</p>

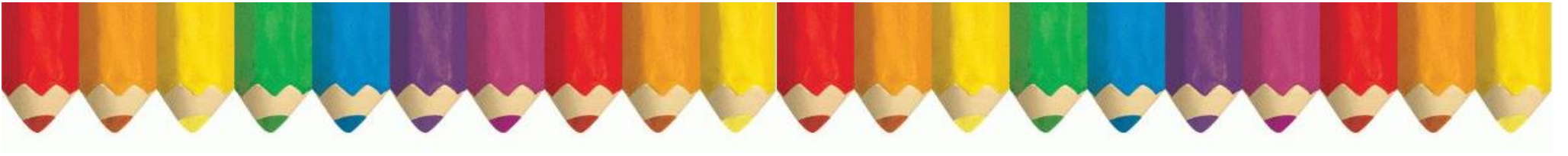




Word list – years 5 and 6

accommodate	frequently	suggest
accompany	government	symbol
according	guarantee	system
achieve	harass	temperature
aggressive	hindrance	thorough
amateur	identity	twelfth
ancient	immediate(ly)	variety
apparent	individual	vegetable
appreciate	interfere	vehicle
attached	interrupt	yacht
available	language	
average	leisure	
awkward	lightning	
bargain	marvellous	
bruise	mischievous	
category	muscle	
cemetery	necessary	
committee	neighbour	
communicate	nuisance	
community	occupy	
competition	occur	
conscience*	opportunity	
conscious*	parliament	
controversy	persuade	
convenience	physical	
correspond	prejudice	
criticise (critic + ise)	privilege	
curiosity	profession	
definite	programme	
desperate	pronunciation	
determined	queue	
develop	recognise	
dictionary	recommend	
disastrous	relevant	
embarrass	restaurant	
environment	rhyme	
equip (–ped, –ment)	rhythm	
especially	sacrifice	
exaggerate	secretary	
excellent	shoulder	
existence	signature	
explanation	sincere(ly)	
familiar	soldier	
foreign	stomach	
forty	sufficient	





Notes and guidance (non-statutory)

Teachers should continue to emphasis to pupils the relationships between sounds and letters, even when the relationships are unusual. Once root words are learnt in this way, longer words can be spelt correctly if the rules and guidance for adding prefixes and suffixes are also known. Many of the words in the list above can be used for practice in adding suffixes.

Understanding the history of words and relationships between them can also help with spelling.

Examples:

- *Conscience* and *conscious* are related to *science*: *conscience* is simply *science* with the prefix *con-* added. These words come from the Latin word *scio* meaning *I know*.
- The word *desperate*, meaning ‘without hope’, is often pronounced in English as *desp’rate*, but the *–sper-* part comes from the Latin *spero*, meaning ‘I hope’, in which the **e** was clearly sounded.
- *Familiar* is related to *family*, so the /ə/ sound in the first syllable of *familiar* is spelt as **a**.

Notes and guidance (non-statutory)

Even though pupils can now read independently, reading aloud to them should include whole books so that they meet books and authors that they might not choose to read themselves.

The knowledge and skills that pupils need in order to comprehend are very similar at different ages. Pupils should continue to apply what they have already learnt to more complex writing.

Pupils should be taught to recognise themes in what they read, such as loss or heroism. They should have opportunities to compare characters, consider different accounts of the same event and discuss viewpoints (both of authors and of fictional characters), within a text and across more than one text.

They should continue to learn the conventions of different types of writing, such as the use of the first person in writing diaries and autobiographies.

Pupils should be taught the technical and other terms needed for discussing what they hear and read, such as metaphor, simile, analogy, imagery, style and effect.

In using reference books, pupils need to know what information they need to look for before they begin and need to understand the task. They should be shown how to use contents pages and indexes to locate information.

The skills of information retrieval that are taught should be applied, for example, in reading history, geography and science textbooks, and in contexts where pupils are genuinely motivated to find out information, for example, reading information leaflets before a gallery or museum visit or reading a theatre programme or review. Teachers should consider making use of any library services and expertise to support this.

Pupils should have guidance about and feedback on the quality of their explanations and contributions to discussions.

Pupils should be shown how to compare characters, settings, themes and other aspects of what they read.

