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### Reading

By the end of Reception, pupils will know and be able to:

- read and understand simple sentences
- use phonic knowledge to decode regular words and read them aloud accurately
- read some common irregular words
- demonstrate understanding when talking with others about what they have read.

By the end of Year 1, children will be able to:

- use letter sounds and phonic knowledge to work out words
- read some common exception words
- answer questions about what is being said and done
- read and understand simple sentences
- respond speedily with the correct sound for all 40+ phonemes, including, where applicable, alternative sounds for graphemes
- read most common exception words
- read words with –s, –es, –ing, –ed, –er and –est endings
- read accurately by blending sounds including words of more than one syllable
- read words with contractions and understand that the apostrophe represents the omitted letter(s)
- check that the text makes sense to themselves as they read and correct inaccurate reading
- tell someone the main points they have just read and discuss significance of events and title
- discuss word meanings, linking meanings to those already known
- predict what might happen on the basis of what has happened so far
- link what they read or hear to their own experiences
- make inferences on the basis of what is being said and done.

By the end of Year 2, children will be able to:

- read accurately by blending the sounds in words that contain the common graphemes for all 40+ phonemes
- read accurately some words of two or more syllables that contain the same grapheme-phoneme correspondences (GPCs)
- read aloud many words quickly and accurately without overt sounding and blending
- sound out many unfamiliar words accurately
- answer questions and make inferences on the basis of what is being said and done in a familiar book
- read accurately most words of two or more syllables and words containing common suffixes
- read accurately most common exception words
- read words accurately and fluently without overt sounding and blending, e.g. at over 90 words per minute
- sound out most unfamiliar words accurately, without undue hesitation
- check it makes sense to them
- answer questions and make some inferences on the basis of what is being said and done
- discuss new word meanings and make links to vocabulary already known
- predict what might happen on the basis of what has been read so far
- make links between the book they are reading and other books they have read
- make inferences on the basis of what is said and done.

By the end of Year 6, children will be able to:

- apply their growing knowledge of root words, prefixes and suffixes to read aloud with fluency and expression
- check that the text makes sense to them, discuss understanding and the meaning of words in context
- predict what might happen from details stated and implied
- ask questions to improve their understanding of a text
- identify and summarise key details and the main ideas drawn from more than one paragraph
- retrieve, record and present information from non-fiction
- draw inferences such as inferring characters' feelings, thoughts and motives from their actions, and justify these with evidence
- discuss and evaluate how authors use language, including figurative language, considering the impact on the reader
- identify how language, structure and presentation contribute to meaning
- identify themes and conventions in a wide range of books
- make comparisons within and across books
- recommend books that they have read to their peers, giving reasons for their choices
- explain and discuss understanding of what they have read, including through formal discussions and debates, maintaining a focus on the topic and using notes where necessary
- participate in discussions about books building on their own and others' ideas and challenging views courteously.

## Phonics – endpoints

By the end of Phase 1 (Nursery), pupils will know and be able to:

- participate in activities and recognise different aspects of sounds relating to environmental sounds, instrumental sounds, rhythm and rhyme, alliteration, voice sounds and oral blending and segmenting.

By the end of Phase 2 (Nursery/Reception), pupils will know and be able to:

- recognise 19 letters of the alphabet and one sound for each (s, a, t, p, i, n, m, d, g, o, c, k, e, u, r, h, b, f, l)
- blend sounds together to make words
- segment words into their separate sounds
- begin to read simple captions
- read 'Common Exception Words' by sight (to, the, no, go, I)

By the end of Phase 3 (Reception), pupils will know and be able to:

- recognise the remaining 7 letters of the alphabet and one sound for each (j, v, w, x, y, z, q)
- recognise graphemes that represent phonemes not covered by single letters (qu, ch, sh, th, ng, ai, ee, igh, oa, oo, ar, or ur, ow oi, ear, air, ure, er)
- read captions, sentences and questions
- read Common Exception Words by sight (he, she, we, me, be, was, my, you, they, here, all are)
- spell/write Common Exception Words (to, the no, go, I)

By the end of Phase 4 (Reception), pupils will know and be able to:

- use the grapheme—phoneme correspondences taught in previous phases to blend and segment longer words with adjacent consonants (eg swim, clap, jump)
- read Common Exception Words by sight (said, so, have, like, come, some, were, there, little, one, do, when, out, what)
- spell/write Common Exception words (he, she, we, me, be, was, you, they, are, all, my, her, here)

By the end of Phase 5 (Year 1), pupils will know and be able to:

- use more graphemes for the phonemes they already know, plus different ways of pronouncing the graphemes they already know (ay, ou, ie, ea, oy, ir, ue, aw, wh, ph, ew, oe, au, a\_e, e\_e, i\_e, o\_e, u\_e)
- use all the grapheme-phoneme correspondences learnt so far to write decodable spellings correctly
- read Common Exception words by sight (could, should, would, want, oh, their, Mr, Mrs, love, your, people, looked, called, asked, water, where, who, why, thought, through, work, house, many, laughed, because, different, any, eyes, friend, also, once, please, lived, coming, Monday, Tuesday, Wednesday, Thursday, more, before, January, February, April, July, August, October, November, December, door, floor, prince, princess, autumn, school, know, baby, mother, another, talk, two)
- spell/write Common Exception words (said, so, have, like, some come, were, there, little, one, do, when, what, could, should, would, want, their, Mr, Mrs, love, your, people, looked, asked, called, water, where, who, why, though, through, work, house, many, laughed, because, different, any, eyes, friend, once, please, lived, more, coming, Monday, Tuesday, Wednesday, Thursday, also, before, January, February, April, July, August, October, November, December)

By the end of Phase 6 (Year 2), pupils will know and be able to:

- recognise and use the following punctuation correctly; capital letters and full stops, exclamation marks, question marks, commas in lists, contractions and possessive apostrophes
- understand nouns (common, plural and proper nouns), verbs, adjectives, adverbs and expanded noun phrases
- use tenses appropriately (present, regular past, irregular past, future)
- use co-ordinating and subordinating conjunctions
- recognise different sentence types (statement, question, command, exclamation)
- use a dictionary for spellings and definitions
- use a thesaurus to improve vocabulary
- use alphabetical order
- use more graphemes to read and write decodable spellings (examples in brackets):  
y saying /igh/ (try, reply), dge and ge saying /j/ (edge, challenge), gn and kn saying /n/ (sign, gnome, know, knife), wr saying /r/ (wrong, wrist), le, el, al and il saying /l/ (table, camel, total, pencil), eer saying /ear/ (cheer), ture saying /cher/ (picture, adventure), mb saying /m/ (lamb, climb), al saying /or/ (walk, small), o saying /u/ (above, cover), ey saying /ee/ (monkey, honey), war saying /wor/ (warm, towards), wor saying /wur/ (work, worst), s saying /zh/ (usual, treasure), wa saying /wo/ (want, watch), qua saying /quo/ (squash, quality), tion saying /shun/ (station, fiction)
- add -es, -ed, -est or -ing to words ending in y
- add -ed, -er, -est and -y to words ending in e
- add -ing, -ed, -er, -est or -y to CVC and CCVC words
- correctly use the suffixes -ful, -less and -ly, and the prefix dis-
- recognise and spell homophones and near homophones (hear, here, there, their, they're, quiet, quiet)
- read/spell/write Common Exception words (door, floor, prince, princess, autumn, school, know, baby, mother, another, talk, two, world, work, poor, great, break, steak, busy, clothes, whole, Easter, again, most, only, both, please, use, money, parents, every, everybody, pretty, beautiful, England, Ireland, always, after, everyone, mouse, four, eight, aunt, father, prove, improve, hour, move, sure, sugar, half, quarter, straight, weight, caught, daughter, forty, area, heard, early)

## Writing

By the end of Reception, pupils will know and be able to:

- handle equipment and tools effectively, including pencils for writing
- use their phonic knowledge to write words in ways which match their spoken sounds
- write some irregular common words
- write simple sentences which can be read by themselves and others
- spell some words correctly and others are phonetically plausible

By the end of Year 1 pupils will know and be able to:

- Use capital letters for names of people, places, days of the week and the personal pronoun 'I'
- Say what their writing means and says, as well as check that it makes sense
- Produce own ideas for writing
- Show some control over word order producing logical statements using mostly accurate uses of past and present tense
- Use logical phonic strategies when trying to spell unknown words
- Make recognisable attempts at spelling words not known (almost all decodable without the child's help)
- Write simple texts such as lists, stories, reports and recounts (a paragraph or more)
- Begin to show an awareness of how full stops are used in writing
- Give letters a clear and regular size, shape and orientation (ascenders/descenders and upper/lower case usually accurate)
- Use ANY conjunctions (may just be 'and') to join two simple sentences, thoughts or ideas
- Use appropriate vocabulary (should be coherent and sensible) in more than three statements
- Use capital letters and full stops mostly accurately

Prime endpoints – English Year 1	Protocols for quality assurance
Listens to others and usually responds appropriately.	
Can split words into phonemes when reading and spelling.	
Can blend sounds in unfamiliar words.	
Reads accurately from a variety of books.	
Responds and answers questions about a range of texts.	
Sequences a story that has been read.	
Uses simple sentences when writing a story or non-fiction text.	
Usually starts sentences with a capital letter and ends them with a full stop.	
Beginning to use a variety of punctuation appropriately.	
Uses a capital letter for names, days of the week and personal pronoun I.	
Can spell the Year 1 curriculum words accurately.	
Is able to write a series of simple sentences that can be read by others.	
Letters are usually clearly shaped and correctly orientated.	

By the end of Year 2 pupils will know and be able to:

- Write simple, coherent narratives about personal experiences and those of others (real or fictional)
- Write about real events, recording these simply and clearly
- Demarcate most sentences with capital letters and full stops
- Show some correct use of question marks and exclamation marks
- Use present and past tense mostly correctly and consistently
- Use co-ordination (or / and / but) and some subordination (when / if / that / because)
- Segment spoken words into phonemes and representing these by graphemes, spelling many correctly
- Spelling many of the common exception words\*
- Write capital letters and digits of the correct size, orientation and relationship to one another and to lower case letters
- Use space between words that reflects the size of the letters

Prime endpoints – English Year 2	Protocols for quality assurance
Listens attentively and responds with increasing appropriateness.	
Speaks clearly and in detail about a topic.	
Reads accurately with expression.	
Uses decoding strategies when reading unfamiliar words.	
Expresses opinions about major events and characters in texts.	
Answers questions using evidence from the text.	
Sequences a story that has been read and predicts an outcome.	
Writes a story with a clear beginning, middle and end.	
Organises non-fiction writing appropriately.	
Uses capital letters and full stops accurately.	
Can use commas in lists, question marks and exclamation marks.	
Uses apostrophes correctly for singular possession and contractions.	
Uses a range of subordinating and co-ordinating conjunctions.	
Spells high frequency words and the Year 2 curriculum words accurately.	
Uses phonics to spell multi-syllabic words with increasing accuracy.	
Writes letters which are accurately formed and consistent in size.	
Uses joined up writing.	

By the end of Year 3 pupils will know and be able to:

- Begin to use paragraphs to organise ideas
- Describe settings and characters
- Use a range of adjectives
- Use a range of sentence openers for variety, such as fronted adverbials
- Include adverbs and prepositions to add detail and precision
- Use a range of conjunctions to join together clauses
- Use inverted commas for speech
- Use apostrophes for possession
- Edit/re-draft sections to improve grammatical sense or meaning (including spelling)
- Spell most of the statutory word list correctly (Year 3 content)
- Produce legible, joined handwriting

Prime endpoints – English Year 3	Protocols for quality assurance
Listens attentively in different contexts, exploring and communicating their thoughts.	
Speaks clearly and shares ideas.	
Prepares and performs poems, readings or plays in front of an audience.	
Reads a variety of texts with fluency and accuracy.	
Understands the main points of texts and expresses preferences.	
Draws inferences about characters from the text.	
Plans and writes stories including descriptions of characters and settings.	
Use adjectives and adverbs to enhance writing.	
Non-fiction writing is logically organised.	
Use prepositions to add detail	
Punctuates sentences accurately, including speech.	
Ensures sentences always make sense.	
Spells words accurately.	
Use time adverbials and prepositions.	
Handwriting is joined and legible.	



By the end of Year 4 pupils will know and be able to:

- Use paragraphs to organise ideas cohesively
- Describe settings and characters
- Use pronouns for cohesion
- Use a range of fronted adverbials, punctuated correctly
- Use standard English verb forms in their writing ('we were' or 'I did', rather than 'we was' or 'I done')
- Use expanded noun phrases and prepositional phrases to add detail and precision
- Use a wide range of conjunctions to show time, place and cause
- Use the full range of speech punctuation (inverted commas as well as punctuation to separate speech and reporting clauses)
- Use apostrophes for possession mostly correctly (both singular and plural possession)
- Edit/re-draft sections to improve grammatical sense or meaning (including spelling)
- Spell most of the statutory word list correctly (Year 3 & 4 content)
- Produce legible joined handwriting

Prime endpoints – English Year 4	Protocols for quality assurance
Listens attentively, showing understanding by communicating their ideas.	
Speaks clearly when expressing thoughts and answering questions.	
Reads a variety of texts with fluency, accuracy and expression.	
Uses inference and deduction when reading.	
Approaches unfamiliar words with confidence and discovers their meaning.	
Listens to and discusses a wide range of fiction and non-fiction texts.	
Plans their writing using appropriate ideas, following the genre.	
Writes well structure stories with detailed descriptions.	
Writes organised and structured pieces of non-fiction.	
Evaluates and edits own work effectively.	
Demonstrates an understanding of how to use a variety of punctuation to convey meaning in writing.	
Uses fronted adverbials to express time, place or manner as well as adverbs.	
Extends the range of sentences with more than one clause by using a wider range of conjunctions.	
Spelling is usually accurate.	
Handwriting is joined and legible.	

By the end of Year 5 pupils will know and be able to:

- In narratives, describe settings, characters and atmosphere
- Select vocabulary and grammatical structures that reflect the level of formality required mostly correctly – depending on the purpose of the writing (show awareness of the audience and purpose)
- Use a range of cohesive devices, including adverbials, within and across sentences and paragraphs
- Use a wide range of clause structures, sometimes varying their position within the sentence (single, compound, complex, relative, embedded)
- Use the full range of speech punctuation (inverted commas as well as punctuation to separate speech and reporting clauses)
- Use a range of punctuation for effect and clarity
- Edit/re-draft sections to improve grammatical sense or meaning (including spelling)
- Spell most of the statutory word list correctly (Year 5 content)
- Maintain legibility, fluency and speed in handwriting through choosing whether or not to join specific letters

Prime endpoints – English Year 5	Protocols for quality assurance
Listens attentively, making relevant and thoughtful contributions.	
Speaks with confidence in a range of contexts.	
Reads a wide variety of texts with fluency and accuracy.	
Uses inference and deduction to respond to a range of texts.	
Refers to the text when explaining their views.	
Writes stories with sustained and developed ideas.	
Organises non-fiction writing appropriately for its intended purpose.	
Uses adventurous descriptive language.	
Uses a full range of punctuation accurately, including brackets, dashes or commas to indicate parenthesis.	
Uses commas to clarify meaning or avoid ambiguity.	
A variety of conjunctions and relative clauses are used to create complex sentences.	
Beginning to spell Year 5/6 curriculum spellings accurately.	
Handwriting style is fluent, joined and legible.	

By the end of Year 6 pupils will know and be able to:

- Write effectively for a range of purposes and audiences, selecting language that shows good awareness of the reader
- Describe settings, characters and atmosphere in narratives and integrating dialogue to convey character and advance the action
- Select vocabulary and grammatical structures that reflect what the writing requires (E.g. Contracted forms in dialogue in narratives, Passive verbs to affect how information is presented, Modal verbs to suggest degrees of possibility)
- Use a range of devices to build cohesion (e.g. conjunctions, adverbials of time and place, pronouns, synonyms) within and across paragraphs
- Use verb tenses consistently and correctly
- Using the full range of speech punctuation (inverted commas as well as punctuation to separate speech and reporting clauses)
- Use commas for clarity mostly correctly
- Use punctuation for parenthesis mostly correctly
- Use a range of advanced punctuation mostly accurately e.g. dashes, colons, semi-colons or hyphens
- Edit/re-draft sections to improve grammatical sense or meaning (including spelling)
- Spell most of the statutory word list correctly (Year 5 & 6 content)
- Maintain legibility in joined handwriting when writing at speed

Prime endpoints – English Year 6	Protocols for quality assurance
Listens attentively, making contributions and asking questions that are responsive to others' ideas and views.	
Speaks confidently when conveying thoughts and opinions.	
Uses inference and deduction to answer questions about a text.	
Refers to texts to answer questions and to support and justify opinions.	
Writes fiction texts which demonstrate the features of good writing.	
Non-fiction writing is organised and structured appropriately for audience and purpose.	
Uses adventurous vocabulary which is chosen for effect.	
Uses advanced punctuation accurately, including semi-colons, colons, dashes and hyphens.	
Uses grammatical structures accurately.	
Can spell Year 5/6 curriculum spellings accurately.	
Handwriting style is joined, clear and fluent.	



By the end of Reception, pupils will know and be able to:

- count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number
- use quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer
- solve problems, including doubling, halving and sharing.
- use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems
- recognise, create and describe patterns
- explore characteristics of everyday objects and shapes and use mathematical language to describe them.

By the end of year 1 pupils will know and be able to:

Place Value: Counting	Place Value: Represent
<ul style="list-style-type: none"><li>• count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</li><li>• Count numbers to 100 in numerals; count in multiples of twos, fives and tens</li></ul>	<ul style="list-style-type: none"><li>• identify and represent numbers using objects and pictorial representations</li><li>• read and write numbers to 100 in numerals</li><li>• read and write numbers from 1 to 20 in numerals and words.</li></ul>
Place Value: Use Place Value and Compare	Place Value: Problems and Rounding
<ul style="list-style-type: none"><li>• given a number, identify one more and one less</li></ul>	
Addition and Subtraction: Recall, Represent, Use	Addition and Subtraction: Calculations
<ul style="list-style-type: none"><li>• read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs</li><li>• represent and use number bonds and related subtraction facts within 20</li></ul>	<ul style="list-style-type: none"><li>• solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as <math>7 = \square - 9</math></li></ul>

Addition and Subtraction: Solve Problems	Multiplication and Division: Recall, Represent, Use
<ul style="list-style-type: none"> <li>solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as <math>7 = \square - 9</math></li> </ul>	
Multiplication and Division: Calculations	Multiplication and Division: Solve Problems
	<ul style="list-style-type: none"> <li>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</li> </ul>
Multiplication and Division: Combined operations	Fractions: Recognise and Write
	<ul style="list-style-type: none"> <li>recognise, find and name a half as one of two equal parts of an object, shape or quantity</li> <li>recognise, find and name a quarter as one of four equal parts of an object, shape or quantity</li> </ul>
Fractions: Compare	Fractions Calculations
Decimals: Recognise and Write	Decimals: Compare
Decimals: Calculations and Problems	Fractions, Decimals and Percentages
Ratio and Proportion	Algebra
	<ul style="list-style-type: none"> <li>solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as <math>7 = \square - 9</math></li> </ul>

Measurement: Using Measures	Measurement: Money
<ul style="list-style-type: none"> <li>• compare, describe and solve practical problems for:               <ul style="list-style-type: none"> <li>➤ lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]</li> <li>➤ mass/weight [for example, heavy/light, heavier than, lighter than]</li> <li>➤ capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]</li> <li>➤ time [for example, quicker, slower, earlier, later]</li> </ul> </li> <li>• measure and begin to record the following:               <ul style="list-style-type: none"> <li>➤ lengths and heights</li> <li>➤ mass/weight</li> <li>➤ capacity and volume</li> <li>➤ time (hours, minutes, seconds)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• recognise and know the value of different denominations of coins and notes</li> </ul>
Measurement: Time	Measurement: Perimeter, Area, Volume
<ul style="list-style-type: none"> <li>• sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]</li> <li>• recognise and use language relating to dates, including days of the week, weeks, months and years</li> <li>• tell the time to the hour and half past the hour and draw the hands on a clock face to show these times</li> </ul>	

Geometry: 2-d shapes	Geometry: 3-d shapes
<ul style="list-style-type: none"> <li>recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles]</li> </ul>	<ul style="list-style-type: none"> <li>recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]</li> </ul>
Geometry: Angles and Lines	Geometry: Position and Direction
	<ul style="list-style-type: none"> <li>describe position, direction and movement, including whole, half, quarter and three-quarter turns</li> </ul>
Statistics: Present and Interpret	Statistic: Solve Problems

Prime endpoints – Mathematics Year 1	Protocols for quality assurance
Presents work appropriately.	
Reads, writes and interprets mathematical statements involving addition, subtraction and equals.	
Counts, reads and writes numbers up to 100 in numerals, from any given number.	
Represents and uses mental number bonds and related subtraction facts within 20.	
Counts in multiples of 2, 5 and 10 up to 100.	
Identifies and represents numbers using objects & pictorial representations.	
Adds & subtracts 1-digit & 2-digit numbers to 20.	
Solves one-step problems involving addition & subtraction.	
Solves one-step problems involving multiplication & division with support.	
Recognises and names common 2D and 3D shapes.	
Recognises, finds and names a half and a quarter of an object, shape or quantity.	
Measures and begins to record the lengths and heights, mass/weight, capacity and volume of objects.	
Recognises and uses language relating to dates, days of the week, weeks, months and years and can sequence events in chronological order.	
Compares, describes and solves practical problems for lengths and heights, mass/weight, capacity, volume and time.	
Tells the time using o'clock and half past.	
Recognises and knows the value of different denominations of coins and notes.	

By the end of year 2 pupils will know and be able to:

Place Value: Counting	Place Value: Represent
<ul style="list-style-type: none"> <li>count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward</li> </ul>	<ul style="list-style-type: none"> <li>read and write numbers to at least 100 in numerals and in words</li> <li>identify, represent and estimate numbers using different representations, including the number line</li> </ul>
Place Value: Use Place Value and Compare	Place Value: Problems and Rounding
<ul style="list-style-type: none"> <li>recognise the place value of each digit in a two-digit number (tens, ones)</li> <li>compare and order numbers from 0 up to 100; use <math>&lt;</math>, <math>&gt;</math> and <math>=</math> signs</li> </ul>	<ul style="list-style-type: none"> <li>use place value and number facts to solve problems.</li> </ul>
Addition and Subtraction: Recall, Represent, Use	Addition and Subtraction: Calculations
<ul style="list-style-type: none"> <li>recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100</li> <li>show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot</li> <li>recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems</li> </ul>	<ul style="list-style-type: none"> <li>add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> <li>a two-digit number and ones</li> <li>a two-digit number and tens</li> <li>two two-digit numbers</li> <li>adding three one-digit numbers</li> </ul> </li> </ul>



<p><b>Addition and Subtraction: Solve Problems</b></p> <ul style="list-style-type: none"> <li>• solve problems with addition and subtraction: <ul style="list-style-type: none"> <li>➤ using concrete objects and pictorial representations, including those involving numbers, quantities and measures</li> <li>➤ applying their increasing knowledge of mental and written methods</li> </ul> </li> </ul>	<p><b>Multiplication and Division: Recall, Represent, Use</b></p> <ul style="list-style-type: none"> <li>• recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</li> <li>• show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot</li> </ul>
<p><b>Multiplication and Division: Calculations</b></p> <ul style="list-style-type: none"> <li>• calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (<math>\times</math>), division (<math>\div</math>) and equals (<math>=</math>) signs</li> </ul>	<p><b>Multiplication and Division: Solve Problems</b></p> <ul style="list-style-type: none"> <li>• solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts</li> </ul>
<p><b>Multiplication and Division: Combined operations</b></p>	<p><b>Fractions: Recognise and Write</b></p> <ul style="list-style-type: none"> <li>• recognise, find, name and write fractions <math>\frac{1}{3}</math>, <math>\frac{1}{4}</math>, <math>\frac{2}{4}</math> and <math>\frac{3}{4}</math> of a length, shape, set of objects or quantity</li> </ul>
<p><b>Fractions: Compare</b></p> <ul style="list-style-type: none"> <li>• Recognise the equivalence of <math>\frac{2}{4}</math> and <math>\frac{1}{2}</math></li> </ul>	<p><b>Fractions Calculations</b></p> <ul style="list-style-type: none"> <li>• write simple fractions for example, <math>\frac{1}{2}</math> of 6 = 3</li> </ul>
<p><b>Decimals: Recognise and Write</b></p>	<p><b>Decimals: Compare</b></p>
<p><b>Decimals: Calculations and Problems</b></p>	<p><b>Fractions, Decimals and Percentages</b></p>

Ratio and Proportion	Algebra
	<ul style="list-style-type: none"> <li>recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems</li> </ul>
Measurement: Using Measures	Measurement: Money
<ul style="list-style-type: none"> <li>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</li> <li>compare and order lengths, mass, volume/capacity and record the results using &gt;, &lt; and =</li> </ul>	<ul style="list-style-type: none"> <li>recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value</li> <li>find different combinations of coins that equal the same amounts of money</li> <li>solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change</li> </ul>
Measurement: Time	Measurement: Perimeter, Area, Volume
<ul style="list-style-type: none"> <li>compare and sequence intervals of time</li> <li>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</li> <li>know the number of minutes in an hour and the number of hours in a day</li> </ul>	
Geometry: 2-d shapes	Geometry: 3-d shapes

<ul style="list-style-type: none"> <li>identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line</li> <li>identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]</li> <li>compare and sort common 2-D shapes and everyday objects</li> </ul>	<ul style="list-style-type: none"> <li>recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].</li> <li>compare and sort common 3-D shapes and everyday objects</li> </ul>
Geometry: Angles and Lines	Geometry: Position and Direction
	<ul style="list-style-type: none"> <li>order and arrange combinations of mathematical objects in patterns and sequences</li> <li>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)</li> </ul>
Statistics: Present and Interpret	Statistic: Solve Problems
<ul style="list-style-type: none"> <li>interpret and construct simple pictograms, tally charts, block diagrams and simple tables</li> </ul>	<ul style="list-style-type: none"> <li>ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity</li> <li>ask and answer questions about totalling and comparing categorical data</li> </ul>

Prime endpoints – Mathematics Year 2	
Presents work appropriately, using symbols and simple diagrams.	
Recognises the place value and order of numbers to 100.	
Adds, subtracts, doubles and halves numbers to 20 mentally.	
Can use appropriate methods to solve addition and subtraction problems.	
Identifies and uses money correctly to solve real-life problems.	
Knows multiplication facts for 2x, 5x and 10x tables.	
Can use appropriate methods to solve multiplication and division problems.	
Can use inverse operations to check their answers.	
Understands fractions and can find $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{3}{4}$ of shapes and amounts.	
Can name common 2D and 3D shapes and describe their properties.	
Describes directions using quarter turns, clockwise and anti-clockwise.	
Measures length, weight and capacity using appropriate units of measure.	
Tells the time to five-minute intervals and can draw times onto a clock face.	
Collects and interprets data, using simple tables and graphs.	

By the end of year 3 pupils will know and be able to:

Place Value: Counting	Place Value: Represent
<ul style="list-style-type: none"> <li>count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number</li> </ul>	<ul style="list-style-type: none"> <li>identify, represent and estimate numbers using different representations</li> <li>read and write numbers up to 1000 in numerals and in words</li> </ul>
Place Value: Use Place Value and Compare	Place Value: Problems and Rounding
<ul style="list-style-type: none"> <li>recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</li> <li>compare and order numbers up to 1000</li> </ul>	<ul style="list-style-type: none"> <li>solve number problems and practical problems involving these ideas</li> </ul>
Addition and Subtraction: Recall, Represent, Use	Addition and Subtraction: Calculations
<ul style="list-style-type: none"> <li>estimate the answer to a calculation and use inverse operations to check answers</li> </ul>	<ul style="list-style-type: none"> <li>add and subtract numbers mentally, including: <ul style="list-style-type: none"> <li>a three-digit number and ones</li> <li>a three-digit number and tens</li> <li>a three-digit number and hundreds</li> </ul> </li> <li>add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</li> </ul>
Addition and Subtraction: Solve Problems	Multiplication and Division: Recall, Represent, Use
<ul style="list-style-type: none"> <li>solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</li> </ul>	<ul style="list-style-type: none"> <li>recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</li> </ul>

Multiplication and Division: Calculations	Multiplication and Division: Solve Problems
<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects</li> </ul>
Multiplication and Division: Combined operations	Fractions: Recognise and Write
	<ul style="list-style-type: none"> <li>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</li> <li>recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</li> <li>recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators</li> </ul>
Fractions: Compare	Fractions Calculations
<ul style="list-style-type: none"> <li>recognise and show, using diagrams, equivalent fractions with small denominators</li> <li>compare and order unit fractions, and fractions with the same denominators</li> </ul>	<ul style="list-style-type: none"> <li>add and subtract fractions with the same denominator within one whole [for example, <math>\frac{5}{7} + \frac{1}{7} = \frac{6}{7}</math>]</li> <li>solve problems that involve all of the above</li> </ul>
Decimals: Recognise and Write	Decimals: Compare
Decimals: Calculations and Problems	Fractions, Decimals and Percentages

Ratio and Proportion	Algebra
	<ul style="list-style-type: none"> <li>solve problems, including missing number problems</li> </ul>
Measurement: Using Measures	Measurement: Money
<ul style="list-style-type: none"> <li>measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</li> </ul>	<ul style="list-style-type: none"> <li>add and subtract amounts of money to give change, using both £ and p in practical contexts</li> </ul>
Measurement: Time	Measurement: Perimeter, Area, Volume
<ul style="list-style-type: none"> <li>tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks</li> <li>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</li> <li>know the number of seconds in a minute and the number of days in each month, year and leap year</li> <li>compare durations of events [for example to calculate the time taken by particular events or tasks]</li> </ul>	<ul style="list-style-type: none"> <li>measure the perimeter of simple 2-D shapes</li> </ul>
Geometry: 2-d shapes	Geometry: 3-d shapes
<ul style="list-style-type: none"> <li>draw 2-D shapes</li> </ul>	<ul style="list-style-type: none"> <li>make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them</li> </ul>

Geometry: Angles and Lines	Geometry: Position and Direction
<ul style="list-style-type: none"> <li>• recognise angles as a property of shape or a description of a turn</li> <li>• 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</li> <li>• identify horizontal and vertical lines and pairs of perpendicular and parallel lines</li> </ul>	
Statistics: Present and Interpret	Statistic: Solve Problems
<ul style="list-style-type: none"> <li>• interpret and present data using bar charts, pictograms and tables</li> </ul>	<ul style="list-style-type: none"> <li>• 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</li> </ul>



Prime endpoints – Mathematics Year 3	Protocols for quality assurance
Recognises the place value of each digit in a three-digit number.	
Compare and order numbers up to 1000.	
Solves number problems, including missing number and word problems.	
Uses formal written methods for addition and subtraction up to three digit numbers.	
Uses formal written methods for multiplication and division up to four digit numbers.	
Recalls and uses multiplication facts for the (2, 5, 10) 3, 4 and 8 times tables.	
Selects a method of their choice to solve a problem.	
Count up and down in tenths and know their place value.	
Finds fractions of a set of objects.	
Compares and orders fractions with the same denominator.	
Add and subtract fractions with the same denominator.	
Adds and subtracts amounts of money to give change.	
Measures accurately to the nearest tenth using mm, cm or m.	
Reads and tells the time from an analogue clock, including with clocks displaying Roman numerals.	
Recognises and draws 2D and 3D shapes in different orientations.	
Identifies pairs of perpendicular and parallel lines, as well as horizontal and vertical lines.	
Interprets and presents data using bar charts, pictograms and tables.	

By the end of year 4 pupils will know and be able to:

Place Value: Counting	Place Value: Represent
<ul style="list-style-type: none"> <li>count in multiples of 6, 7, 9, 25 and 1000</li> <li>count backwards through zero to include negative numbers</li> </ul>	<ul style="list-style-type: none"> <li>identify, represent and estimate numbers using different representations</li> <li>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</li> </ul>
Place Value: Use Place Value and Compare	Place Value: Problems and Rounding
<ul style="list-style-type: none"> <li>find 1000 more or less than a given number</li> <li>recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>order and compare numbers beyond 1000</li> </ul>	<ul style="list-style-type: none"> <li>round any number to the nearest 10, 100 or 1000</li> <li>solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> </ul>
Addition and Subtraction: Recall, Represent, Use	Addition and Subtraction: Calculations
<ul style="list-style-type: none"> <li>estimate and use inverse operations to check answers to a calculation</li> </ul>	<ul style="list-style-type: none"> <li>add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate</li> </ul>
Addition and Subtraction: Solve Problems	Multiplication and Division: Recall, Represent, Use
<ul style="list-style-type: none"> <li>solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why</li> </ul>	<ul style="list-style-type: none"> <li>recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></li> <li>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</li> <li>recognise and use factor pairs and commutativity in mental calculations</li> </ul>

<p>Multiplication and Division: Calculations</p> <ul style="list-style-type: none"> <li>multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li> </ul>	<p>Multiplication and Division: Solve Problems</p> <ul style="list-style-type: none"> <li>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</li> </ul>
<p>Multiplication and Division: Combined operations</p>	<p>Fractions: Recognise and Write</p> <ul style="list-style-type: none"> <li>count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.</li> </ul>
<p>Fractions: Compare</p> <ul style="list-style-type: none"> <li>recognise and show, using diagrams, families of common equivalent fractions</li> </ul>	<p>Fractions Calculations</p> <ul style="list-style-type: none"> <li>add and subtract fractions with the same denominator</li> <li>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</li> </ul>
<p>Decimals: Recognise and Write</p> <ul style="list-style-type: none"> <li>recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>recognise and write decimal equivalents to <math>\frac{1}{4}, \frac{1}{2}, \frac{3}{4}</math></li> </ul>	<p>Decimals: Compare</p> <ul style="list-style-type: none"> <li>round decimals with one decimal place to the nearest whole number</li> <li>compare numbers with the same number of decimal places up to two decimal places</li> </ul>

Decimals: Calculations and Problems	Fractions, Decimals and Percentages
<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>solve simple measure and money problems involving fractions and decimals to two decimal places</li> </ul>
Ratio and Proportion	Algebra
Measurement: Using Measures	Measurement: Money
<ul style="list-style-type: none"> <li>Convert between different units of measure [for example, kilometre to metre; hour to minute]</li> <li>estimate, compare and calculate different measures</li> </ul>	<ul style="list-style-type: none"> <li>estimate, compare and calculate different measures, including money in pounds and pence</li> </ul>
Measurement: Time	Measurement: Perimeter, Area, Volume
<ul style="list-style-type: none"> <li>read, write and convert time between analogue and digital 12- and 24-hour clocks</li> <li>solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days</li> </ul>	<ul style="list-style-type: none"> <li>measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</li> <li>find the area of rectilinear shapes by counting squares</li> </ul>
Geometry: 2-d shapes	Geometry: 3-d shapes
<ul style="list-style-type: none"> <li>compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</li> <li>identify lines of symmetry in 2-D shapes presented in different orientations</li> </ul>	

Geometry: Angles and Lines	Geometry: Position and Direction
<ul style="list-style-type: none"> <li>identify acute and obtuse angles and compare and order angles up to two right angles by size</li> <li>identify lines of symmetry in 2-D shapes presented in different orientations</li> <li>complete a simple symmetric figure with respect to a specific line of symmetry</li> </ul>	<ul style="list-style-type: none"> <li>describe positions on a 2-D grid as coordinates in the first quadrant</li> <li>describe movements between positions as translations of a given unit to the left/right and up/down</li> <li>plot specified points and draw sides to complete a given polygon</li> </ul>
Statistics: Present and Interpret	Statistic: Solve Problems
<ul style="list-style-type: none"> <li>interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs</li> </ul>	<ul style="list-style-type: none"> <li>solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs</li> </ul>

Prime endpoints – Mathematics Year 4	Protocols for quality assurance
Organises and checks work with care.	
Works accurately with numbers up to 4 digits and identify the place value.	
Rounds positive numbers to nearest 10, 100 or 1000.	
Reads Roman numerals up to 100.	
Uses column method for addition and subtraction up to four digit numbers.	
Solves addition and subtraction two-step problems in context.	
Recalls multiplication and division facts for multiplication tables up to 12 x 12.	
Recognises and uses factor pairs.	
Uses short multiplication when multiplying 2 and 3 digit numbers.	
Recognises and shows families of common equivalent fractions.	
Adds and subtracts fractions with the same denominator including hundredths.	
Recognises and writes decimal equivalents for tenths, hundredths, $\frac{1}{2}$ , $\frac{1}{4}$ & $\frac{3}{4}$ .	
Compares and understands the place value of decimals up to 2 decimal places.	
Converts between different units of measure.	
Reads and writes the time in analogue and digital accurately in terms of hours, minutes and seconds.	

By the end of year 5 pupils will know and be able to:

Place Value: Counting	Place Value: Represent
<ul style="list-style-type: none"> <li>count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000</li> <li>count forwards and backwards with positive and negative whole numbers, including through zero</li> </ul>	<ul style="list-style-type: none"> <li>read, write, (order and compare) numbers to at least 1 000 000 and determine the value of each digit</li> <li>read Roman numerals to 1000 (M) and recognise years written in Roman numerals.</li> </ul>
Place Value: Use Place Value and Compare	Place Value: Problems and Rounding
<ul style="list-style-type: none"> <li>(read, write) order and compare numbers to at least 1 000 000 and determine the value of each digit</li> </ul>	<ul style="list-style-type: none"> <li>interpret negative numbers in context</li> <li>round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000</li> <li>solve number problems and practical problems that involve all of the above</li> </ul>
Addition and Subtraction: Recall, Represent, Use	Addition and Subtraction: Calculations
<ul style="list-style-type: none"> <li>use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</li> </ul>	<ul style="list-style-type: none"> <li>add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)</li> <li>add and subtract numbers mentally with increasingly large numbers</li> </ul>

Addition and Subtraction: Solve Problems	Multiplication and Division: Recall, Represent, Use
<ul style="list-style-type: none"> <li>• solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</li> <li>• solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</li> </ul>	<ul style="list-style-type: none"> <li>• identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers</li> <li>• know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers</li> <li>• establish whether a number up to 100 is prime and recall prime numbers up to 19</li> <li>• recognise and use square numbers and cube numbers, and the notation for squared (<math>^2</math>) and cubed (<math>^3</math>)</li> </ul>
Multiplication and Division: Calculations	Multiplication and Division: Solve Problems
<ul style="list-style-type: none"> <li>• 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</li> <li>• multiply and divide numbers mentally drawing upon known facts</li> <li>• 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</li> <li>• multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</li> </ul>	<ul style="list-style-type: none"> <li>• solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes</li> <li>• solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates</li> </ul>



<p><b>Multiplication and Division: Combined operations</b></p> <ul style="list-style-type: none"> <li>• solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</li> </ul>	<p><b>Fractions: Recognise and Write</b></p> <ul style="list-style-type: none"> <li>• identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths</li> <li>• recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements <math>&gt; 1</math> as a mixed number [for example, <math>\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}</math>]</li> </ul>
<p><b>Fractions: Compare</b></p> <ul style="list-style-type: none"> <li>• compare and order fractions whose denominators are all multiples of the same number</li> </ul>	<p><b>Fractions Calculations</b></p>
<p><b>Decimals: Recognise and Write</b></p> <ul style="list-style-type: none"> <li>• read and write decimal numbers as fractions [for example, <math>0.71 = \frac{71}{100}</math>]</li> <li>• recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</li> </ul>	<p><b>Decimals: Compare</b></p> <ul style="list-style-type: none"> <li>• round decimals with two decimal places to the nearest whole number and to one decimal place</li> <li>• read, write, order and compare numbers with up to three decimal places</li> </ul>
<p><b>Decimals: Calculations and Problems</b></p>	<p><b>Fractions, Decimals and Percentages</b></p>



<ul style="list-style-type: none"> <li>• solve problems involving number up to three decimal places</li> </ul>	<ul style="list-style-type: none"> <li>• 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</li> <li>• solve problems which require knowing percentage and decimal equivalents of <math>\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}</math> and those fractions with a denominator of a multiple of 10 or 25</li> </ul>
Ratio and Proportion	Algebra
Measurement: Using Measures	Measurement: Money
<ul style="list-style-type: none"> <li>• convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)</li> <li>• understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints</li> <li>• use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling</li> </ul>	<ul style="list-style-type: none"> <li>• use all four operations to solve problems involving measure [for example, money]</li> </ul>

Measurement: Time	Measurement: Perimeter, Area, Volume
<ul style="list-style-type: none"> <li>solve problems involving converting between units of time</li> </ul>	<ul style="list-style-type: none"> <li>measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres</li> <li>calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>) and estimate the area of irregular shapes</li> <li>estimate volume [for example, using 1 cm<sup>3</sup> blocks to build cuboids (including cubes)] and capacity [for example, using water]</li> </ul>
Geometry: 2-d shapes	Geometry: 3-d shapes
<ul style="list-style-type: none"> <li>distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</li> <li>use the properties of rectangles to deduce related facts and find missing lengths and angles</li> </ul>	<ul style="list-style-type: none"> <li>identify 3-D shapes, including cubes and other cuboids, from 2-D representations</li> </ul>

Geometry: Angles and Lines	Geometry: Position and Direction
<ul style="list-style-type: none"> <li>• know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles</li> <li>• draw given angles, and measure them in degrees</li> <li>• identify: <ul style="list-style-type: none"> <li>➤ angles at a point and one whole turn (total <math>360^\circ</math>)</li> <li>➤ angles at a point on a straight line and <math>\frac{1}{2}</math> a turn (total <math>180^\circ</math>)</li> <li>➤ other multiples of <math>90^\circ</math></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• 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</li> </ul>
Statistics: Present and Interpret	Statistic: Solve Problems
<ul style="list-style-type: none"> <li>• complete, read and interpret information in tables, including timetables</li> </ul>	<ul style="list-style-type: none"> <li>• calculate and interpret the mean as an average</li> </ul>

Prime endpoints – Mathematics Year 5	Protocols for quality assurance
Reads, writes, orders and compares numbers to at least 1,000,000 and determine the value of each digit.	
Chooses appropriate number operations to solve 'real life' problems.	
Explains chosen methods and reasoning when solving problems.	
Uses known number facts and place value for mental addition and subtraction.	
Uses the column method to add and subtract numbers with more than four digits.	
Has rapid recall of times and division facts up to $12 \times 12$ .	
Uses written method to multiply numbers up to 4 digits by 1, or 2 digit numbers	
Uses written methods to calculate division up to 4 digit numbers by 1 number.	
Identifies multiples, factors and prime numbers.	
Uses decimal notation to order decimals to three places.	
Estimates and compares reflex, acute and obtuse angles.	
Reads, writes and compares fractions and decimals.	
Orders and converts fractions, decimals and percentages.	
Calculates the perimeter and area of rectangles and rectilinear shapes.	
Tells the time using a 24 hour clock in analogue and digital.	
Reads and interprets information from tables and graphs.	
Completes, reads and interprets information in tables and timetables.	

By the end of year 6 pupils will know and be able to:

Place Value: Counting	Place Value: Represent
	<ul style="list-style-type: none"> <li>• read, write, (order and compare) numbers up to 10 000 000 and determine the value of each digit</li> </ul>
Place Value: Use Place Value and Compare	Place Value: Problems and Rounding
<ul style="list-style-type: none"> <li>• (read, write), order and compare numbers up to 10 000 000 and determine the value of each digit</li> </ul>	<ul style="list-style-type: none"> <li>• round any whole number to a required degree of accuracy</li> <li>• use negative numbers in context, and calculate intervals across zero</li> <li>• solve number and practical problems that involve all of the above</li> </ul>
Addition and Subtraction: Recall, Represent, Use	Addition and Subtraction: Calculations
	<ul style="list-style-type: none"> <li>• perform mental calculations, including with mixed operations and large numbers</li> <li>• use their knowledge of the order of operations to carry out calculations involving the four operations</li> </ul>
Addition and Subtraction: Solve Problems	Multiplication and Division: Recall, Represent, Use
<ul style="list-style-type: none"> <li>• solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</li> </ul>	<ul style="list-style-type: none"> <li>• identify common factors, common multiples and prime numbers</li> <li>• use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.</li> </ul>
Multiplication and Division: Calculations	Multiplication and Division: Solve Problems

<ul style="list-style-type: none"> <li>multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication</li> <li>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</li> <li>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</li> <li>perform mental calculations, including with mixed operations and large numbers</li> </ul>	<ul style="list-style-type: none"> <li>solve problems involving addition, subtraction, multiplication and division</li> </ul>
Multiplication and Division: Combined operations	Fractions: Recognise and Write
Fractions: Compare	Fractions Calculations
<ul style="list-style-type: none"> <li>use common factors to simplify fractions; use common multiples to express fractions in the same denomination</li> <li>compare and order fractions, including fractions <math>&gt; 1</math></li> </ul>	<ul style="list-style-type: none"> <li>add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions</li> <li>multiply simple pairs of proper fractions, writing the answer in its simplest form [for example <math>\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}</math>]</li> <li>divide proper fractions by whole numbers [for example, <math>\frac{1}{3} \div 2 = \frac{1}{6}</math>]</li> </ul>

Decimals: Recognise and Write	Decimals: Compare
<ul style="list-style-type: none"> <li>identify the value of each digit in numbers given to three decimal places</li> </ul>	
Decimals: Calculations and Problems	Fractions, Decimals and Percentages
<ul style="list-style-type: none"> <li>multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places</li> <li>multiply one-digit numbers with up to two decimal places by whole numbers</li> <li>use written division methods in cases where the answer has up to two decimal places</li> <li>solve problems which require answers to be rounded to specified degrees of accuracy</li> </ul>	<ul style="list-style-type: none"> <li>associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, <math>\frac{3}{8}</math>]</li> <li>recall and use equivalences between simple fractions, decimals and percentages, including in different contexts</li> </ul>
Ratio and Proportion	Algebra
<ul style="list-style-type: none"> <li>solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts</li> <li>solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison</li> <li>solve problems involving similar shapes where the scale factor is known or can be found</li> <li>solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.</li> </ul>	<ul style="list-style-type: none"> <li>use simple formulae</li> <li>generate and describe linear number sequences</li> <li>express missing number problems algebraically</li> <li>find pairs of numbers that satisfy an equation with two unknowns</li> <li>enumerate possibilities of combinations of two variables.</li> </ul>

Measurement: Using Measures	Measurement: Money
<ul style="list-style-type: none"> <li>• solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate</li> <li>• 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</li> <li>• convert between miles and kilometres</li> </ul>	
Measurement: Time	Measurement: Perimeter, Area, Volume
<ul style="list-style-type: none"> <li>• use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit, and vice versa</li> </ul>	<ul style="list-style-type: none"> <li>• recognise that shapes with the same areas can have different perimeters and vice versa</li> <li>• recognise when it is possible to use formulae for area and volume of shapes</li> <li>• calculate the area of parallelograms and triangles</li> <li>• calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (<math>\text{cm}^3</math>) and cubic metres (<math>\text{m}^3</math>), and extending to other units [for example, <math>\text{mm}^3</math> and <math>\text{km}^3</math>]</li> </ul>

Geometry: 2-d shapes	Geometry: 3-d shapes
<ul style="list-style-type: none"> <li>draw 2-D shapes using given dimensions and angles</li> <li>compare and classify geometric shapes based on their properties and sizes</li> <li>illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius</li> </ul>	<ul style="list-style-type: none"> <li>recognise, describe and build simple 3-D shapes, including making nets</li> </ul>
Geometry: Angles and Lines	Geometry: Position and Direction
<ul style="list-style-type: none"> <li>find unknown angles in any triangles, quadrilaterals, and regular polygons</li> <li>recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles</li> </ul>	<ul style="list-style-type: none"> <li>describe positions on the full coordinate grid (all four quadrants)</li> <li>draw and translate simple shapes on the coordinate plane, and reflect them in the axes</li> </ul>
Statistics: Present and Interpret	Statistic: Solve Problems
<ul style="list-style-type: none"> <li>interpret and construct pie charts and line graphs and use these to solve problems</li> </ul>	<ul style="list-style-type: none"> <li>calculate and interpret the mean as an average</li> </ul>



Prime endpoints – Mathematics Year 6	Protocols for quality assurance
Presents work in a clear and organised way.	
Shows understanding of place value up to 10,000,000.	
Knows rapid recall of all multiplication and division facts (up to 12x12).	
Can quickly and accurately use mental methods to solve problems.	
Uses efficient written methods to calculate addition and subtraction problems.	
Multiplies multi-digit numbers by 2-digit numbers using long multiplication.	
Using a written method, divides up to 4 digit numbers by 2 digit numbers with remainders.	
Solves multi-step word problems.	
Adds, subtracts, multiplies and divides fractions.	
Identifies the value of each digit up to 3 decimal places and multiplies and divides numbers by 10, 100 or 1000.	
Finds fractions and percentages of quantities.	
Recognises the names and properties of 2D and 3D shapes, using precise mathematical vocabulary.	
Calculates the perimeter and area of shapes.	
Uses appropriate instruments and units of measurement.	
Extracts and interprets information from tables, graphs, charts and diagrams.	



By the end of Reception, pupils will know and be able to:

- know the importance for good health of physical exercise, and a healthy diet, and talk about ways to keep healthy and safe
- know about similarities and differences in relation to places, objects, materials and living things
- talk about the features of their own immediate environment and how environments might vary from one another
- make observations of animals and plants and explain why some things occur, and talk about changes.

### KS1 Working Scientifically

By the end of Year 1, children will be beginning to;

- Ask simple questions and recognising that they can be answered in different ways.
- Observe closely, using simple equipment.
- Perform simple tests.
- Identify and classify.
- Use observations and ideas to suggest answers to questions.
- Gather and record data to help in answering questions.

By the end of year 1, in the study of plants, pupils will know and be able to

- identify and name a variety of common wild and garden plants, including deciduous and evergreen trees
- identify and describe the basic structure of a variety of common flowering plants, including trees.

By the end of year 1, in the study of animals, pupils will know and be able to

- identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals
- 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 (fish, amphibians, reptiles, birds and mammals, 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.

By the end of year 1, in the study of everyday materials, pupils will know and be able to

- 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 everyday materials on the basis of their simple physical properties.

By the end of year 1, in the study of the seasons, pupils will know and be able to

- observe changes across the four seasons
- observe and describe weather associated with the seasons and how day length varies.

Prime endpoints – Science Year 1	Protocols for quality assurance
To begin to use observations and ideas to suggest answers to questions	
Observe and describe weather associated with the seasons and how day length varies.	
Compares and groups a variety of everyday material on the basis of their physical properties.	

Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.	
Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.	
Identify and name a variety of common wild and garden plants, including trees.	

By the end of Year 1, children will be beginning to;

KS1 Working Scientifically

- Ask simple questions and recognising that they can be answered in different ways.
- Observe closely, using simple equipment.
- Perform simple tests.
- Identify and classify.
- Use observations and ideas to suggest answers to questions.
- Gather and record data to help in answering questions.

By the end of year 2, in the study of living things and their habitats, pupils will know and be able to explore and compare the differences between things that are living, dead, and things 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
- explore and compare the differences between things that are living, dead and things that have never come alive.
- 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.

By the end of year 2, in the study of plants, pupils will know and be able to

- 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.

By the end of year 2, in the study of animals including humans, pupils will know and be able to

- notice that animals, including humans, have offspring which grow into adults
- find out about 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.

By the end of year 2, in the study of the uses of everyday materials, pupils will know and be able to

- identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses
- find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

Prime endpoints – Science Year 2	Protocols for quality assurance
Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.	
Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.	
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.	
Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.	
Gathers evidence and records simple data to help answer questions.	
Perform simple tests and observe closely.	

In Year 3, children will be beginning to;

- Ask relevant questions and use different types of scientific enquiries to answer them.
- Set up simple practical enquiries, comparative and fair tests.
- Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, use a range of equipment, include thermometers and data loggers.
- Gather, record, classify and present data in variety of ways to help in answering questions.
- Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.
- Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
- Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.
- Identify differences, similarities or changes related to simple scientific ideas and processes.
- Use straightforward scientific evidence to answer questions or to support their findings.

By the end of year 3, in the study of plants, pupils will know and be able to

- identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers
- 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 part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

By the end of year 3, in the study of animals including humans, pupils will know and be able to

- identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
- identify that humans and some other animals have skeletons and muscles for support, protection and movement.

By the end of year 3, in the study of rocks, pupils will know and be able to

- compare and group together different kinds of rocks on the basis of their appearance and 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.

By the end of year 3, in the study of light, pupils will know and be able to

- recognise that they need light in order to see things and that dark is the absence of light
- 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.

By the end of year 3, in the study of forces, pupils will know and be able to

- compare how things move on different surfaces
- notice that some forces need contact between two objects, but magnetic forces can act at a distance
- 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
- describe magnets as having two poles
- predict whether two magnets will attract or repel each other, depending on which poles are facing.

Prime endpoints – Science Year 3	Protocols for quality assurance
Is beginning to set up simple practical enquiries, comparative and fair tests.	
Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	
Recognise that shadows are formed when the light from a light source is blocked by a solid object.	
Notice that some forces need contact between two objects, but magnetic forces can act at a distance.	
Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.	
Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.	

## Lower KS2 Working Scientifically

- Asking relevant questions and using different types of scientific enquiries to answer them.
- Setting up simple practical enquiries, 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.
- Gathering, recording, classifying and presenting data in variety of ways to help in answering questions.
- Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.
- Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
- Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.
- Identifying differences, similarities or changes related to simple scientific ideas and processes.
- Using straightforward scientific evidence to answer questions or to support their findings.

By the end of year 4, in the study of living things and their habitats, pupils will know and be able to

- recognise that living things can be grouped in a variety of ways
- explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
- recognise that environments can change and that this can sometimes pose dangers to living things.

By the end of year 4, in the study of animals including humans, pupils will know and be able to

- 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
- construct and interpret a variety of food chains, identifying producers, predators and prey.

By the end of year 4, in the study of states of matter, pupils will know and be able to

- 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 or research 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 of evaporation with temperature.

By the end of year 4, in the study of sounds, pupils will know and be able to

- 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.

By the end of year 4, in the study of electricity pupils will know and be able to

- 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.

Prime endpoints – Science Year 4	Protocols for quality assurance
Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.	
Explores & uses classification keys to help group, identify and name a variety of living things in their local and wider environment.	
Describes the simple functions of the basic part of the digestive system in humans	
Identify the different types of teeth in humans and their simple functions	
Compares & groups 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 or research the temperature at which this happens in degrees Celcius.	
Identifies how sounds are made, associating some of them with something vibrating.	
Constructs a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.	



## Upper Key Stage 2 Working Scientifically

By the end of Year 5, children will be beginning to;

- Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings.
- Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
- Use test results to make predictions to set up further comparative and fair tests.
- Report and present 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.
- Identify scientific evidence that has been used to support or refute ideas or arguments.

By the end of year 5, in the study of living things and habitats, pupils will know and be able to

- describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
- describe the life process of reproduction in some plants

By the end of year 5, in the study of animals including humans, pupils will know and be able to

- describe the changes as humans develop to old age
  - identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood
  - recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function
- describe the ways in which nutrients and water are transported within animals, including humans

By the end of year 5, in the study of properties and changes of materials, pupils will know and be able to

- compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (thermal), and response to magnets
- know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
- use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
- 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 and the action of acid on bicarbonate of soda.

By the end of year 5, in the study of earth and space, pupils will know and be able to

- describe the movement of the Earth and other planets relative to the sun in the solar system
- describe the movement of the moon relative to the Earth
- describe the sun, Earth and moon as approximately spherical bodies
- use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

By the end of year 5, in the study of forces, pupils will know and be able to

- explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
- identify the effects of 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

Prime endpoints – Science Year 5	Protocols for quality assurance
Is beginning to Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.	
Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.	
Describe the life process of reproduction in some plants.	
Identify the effects of air resistance, water resistance and friction, that act between moving surfaces	
Demonstrate that dissolving, mixing and changes of state are reversible changes	
Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky	

#### Upper Key Stage 2 Working Scientifically

- Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings.
- Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
- Using test results to make predictions to set up further comparative and fair tests.
- 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.
- Identifying scientific evidence that has been used to support or refute ideas or arguments.

By the end of year 6, in the study of living things and their habitats, pupils will know and be able to

- describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.
- give reasons for classifying plants and animals based on specific characteristics.
- describe the life process of reproduction in some animals.

By the end of year 6, in the study of evolution and inheritance, pupils will know and be able to

- recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago
- recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
- identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution

By the end of year 6, in the study of light, pupils will know and be able to

- recognise that light appears to travel in straight lines.
- 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.
- use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

By the end of year 6, in the study of electricity, pupils will know and be able to

- 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.
- use recognised symbols when representing a simple circuit in a diagram.
- compare and group materials based on their electrical conductivity.

Prime endpoints – Science Year 6	Protocols for quality assurance
Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.	
Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals	
Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.	
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.	
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.	



By the end of Reception, pupils will know and be able to:

- know about similarities and differences in relation to places, objects, materials and living things
- talk about the features of their own immediate environment and how environments might vary from one another
- make observations of animals and plants and explain why some things occur, and talk about changes

By the end of year 1 pupils will know and be able to:

Autumn 1 – Have you ever been lost?

- use and interpret a simple plan.
- understand that symbols are used in a key.
- use and extend use of positional vocabulary.
- experience N, S, E and W in various ways.
- understand that symbols give meaning and represent areas/objects.

Autumn 2 – Up, up and away!

- know which forms of transport can be used for travel over land, water and in the air.
- locate on a map the four countries which make the UK.
- locate and name the major seas around the UK.
- name the capital of each of the four countries.
- know about the country in which they live and its place within the world.
- know that London is the capital of England.
- recognise and talk about some well-known landmarks in London.

Spring 1 – Polar Bears or penguins.

- locate the North and South Poles, the Arctic and Antarctic on a globe.
- know about key features of the North Pole.
- understand that the North Pole is frozen sea water in the Arctic Ocean.
- know that the pattern of night and day is different at the Poles.
- identify the similarities and differences between the North and South Poles.
- discuss how people live within the Arctic Circle including food, dress, homes and travel.
- know about the life cycle of the polar bear and how it moves around.
- know that polar bears live near the North not South Pole, and that penguins live near the South not North Pole.
- understand the life cycle of a penguin.
- discuss how penguins and others live in these conditions.

Spring 2 – Sun hats or umbrellas?

- name different types of weather.
- recognise symbols for weather types.
- record daily weather patterns.
- identify items of clothing and other objects suited to hot, cold and wet conditions.
- has some understanding of seasonal weather patterns.
- know the four seasons and can describe the weather in each season.
- know simple vocabulary to describe different types of rain.
- able to discuss where the rain goes.
- understand that some countries are very cold and other countries are much hotter and drier.
- locate the Equator.
- identify differences between hot and cold areas and can recognise some physical differences.

### Summer 1 – What if I live in?

- begin to understand that there are similarities and differences between urban and rural settings.
- identify different types of housing.
- to discuss what life is like in a town.
- understand what a park is and how parks can differ in their usage.
- know the types of shop found in the chosen urban area.
- discuss the need for amenities such as emergency services, hospitals and schools.

### Summer 2 – What if I live in?

- know about a rural (country) setting.
- begin to understand and can express some basic differences between urban and rural settings.
- know what a farm is.
- understand that farms are different in size and what is produced.
- understand that farms provide food for others.
- understand that seas and lakes can be farmed
- understand that country and coastal areas can be visited by others for recreation.
- understand that tourism plays a part in towns.

### Skills and knowledge.

- use simple fieldwork and observational skills to study the geography of their school and the key human/physical features of its surrounding environment.
- use simple compass directions (N, S, E, W) to describe the location of features.
- begin to understand the need for and use of a key.
- use own symbols on maps.
- understand the purpose of maps to show 'where'.
- to use a simple picture map to move around school.
- develop and follow directional vocabulary (up, down, right, left, forwards, backwards) and use it to describe the location of features.
- use world maps, atlases and globes to identify and locate the United Kingdom and other continents and oceans.
- use non-fiction books, stories, maps, pictures and photographs as sources of information.
- use basic geographical vocabulary to refer to key physical and human features.
- make simple comparisons between features of different places.
- begin to ask/initiate/widen the scope of geographical questioning and offer their own ideas.

Prime endpoints – Geography Year 1	Protocols for quality assurance
Uses world maps and globes to identify continents, countries, oceans and the four countries of the United Kingdom.	
Identifies the seasonal and daily weather patterns within the UK.	
Explores geography of the school and its grounds.	
Uses simple maps and creates a key to move around the school and local area.	
Knows about animals, people and seasonal weather of the Poles and the Equator.	
Compares physical similarities and differences of places around the UK.	

By the end of year 2 pupils will know and be able to:

#### Autumn 1 – What is there around me?

- devise a simple map to show their journey to school.
- depict key features on a map, using agreed symbols.
- undertake a traffic survey.
- collate and interpret the information gathered.
- knows different modes of transport available, such as by car, bus, train, aircraft and ferry.
- uses maps to identify places where transport could be accessed.
- collects information about local shops.
- understands that some items are local and others are shipped from overseas.
- can discuss reasonable changes to their local environment.

#### Autumn 2 – Is it really round?

- identify the seven continents, the United Kingdom and the five oceans.
- understand that if they travel from their school in one direction, they will eventually return to where they started as the world is a sphere.
- can locate and name the continents and oceans studied
- can understand and interpret a 2D representation of the world in map form.

#### Spring 1 – A visit to China.

- knows where to find China on a world map and globe.
- recognise similarities and differences between Beijing and cities/towns in the United Kingdom.
- understand how rice is grown.
- understand the importance of rice as a source of food.
- knows about the lives of two different Chinese children: one living in a city, the other a village.
- understand that although there are similarities, life for a child in Beijing can be very different from that of a child in a small village.
- knows about some aspects of Chinese culture – meditation, art and food.

#### Spring 2 – Which way shall I go?

- read a simple map or plan.
- find their way on a journey and identify places using a simple grid system.
- design a map of an island with grid numbers.
- use globes and world maps to help create a journey line from their school to Kenya, Africa.

#### Summer 1 – What have I found out about the world?

- name places they have visited both in UK and overseas and find them on a map or globe.
- use different sources of information to identify where famous landmarks and geographical features are found in the world.
- place landmarks and features on a world map.
- give an explanation (presentation) as to why they would like to visit anywhere in the world.
- use the globes and world maps to help create a journey line from their school to Kenya, Africa.

#### Summer 2 – Where shall we go on safari?

- locate Africa and Kenya.
- knows what a national safari park is.
- map the journey to Kenya on a globe or world map.
- knows about Kenya's terrain.
- knows about the wet and dry seasons in Kenya and the importance of rain.
- knows which animals might be found in the safari park.
- understand that animals move in search of food.
- knows that some animals are endangered.

### Skills and knowledge

- use simple fieldwork and observational skills to study the key human and physical features of the surrounding environment.
- create freehand route maps.
- depict key features on a map, using agreed symbols.
- begin to understand the need for and use of a key.
- use simple compass points (N, S, E, W) and locational and directional language(near, far) to describe the location of features and routes on a map.
- follow a route on a map
- use simple world maps, globes and infant atlases to identify the United Kingdom, its four countries and their capital cities.
- use simple world maps, globes and atlases to identify and locate countries, the seven continents and five oceans of the world.
- can understand that if they travel from their school in one direction, east or west (using a compass), they will eventually return to where they started as the world is a sphere.

Prime endpoints – Geography Year 2	Protocols for quality assurance
Can use world maps to identify continents, countries and oceans.	
Knows about the Poles, the equator and different climate zones.	
Can recognise and describe key physical and human geographical features.	
Can create a simple map with a key and can give directions.	
Is able to compare different environments using geographical vocabulary.	

By the end of year 3 pupils will know and be able to:

Investigating our local area.

- plan a route to record features in the locality.
- follow a route or trail in the local area.
- use a structured format to create a simple sketch map.
- create maps and plans with agreed symbols.
- compare informal and OS symbols.

What on Earth?

- identify and match features on a globe and world map.
- identify key features on a map of the British Isles.
- locate countries and cities of the United Kingdom using maps and satellite imagery.
- locate geographical regions of England and Wales.
- locate geographical regions of Scotland and Northern Ireland

Where and why does the Earth rumble?

- name and locate UK and world mountain chains.
- locate on a map the location of: the tallest six mountains in the world; the tallest six mountains in Europe; major mountain ranges and the tallest mountains in the UK.
- understand how contour lines on an OS map show us the formation of mountains and hills.
- describe how different types of mountain and mountain chain are formed and give examples.
- describe how volcanoes are formed and give examples.
- locate volcanoes on a map.
- have an appreciation of the impact of volcanic eruptions on life at both the local and global level.
- understand how weather on a mountain changes through the seasons and altitude and how this affects human activity.
- knows about issues and conflicts in the use of mountain environments.
- understand how weather on a mountain changes quickly and with altitude.
- knows what an avalanche is and where and why they occur.

What's special about Malopolska, Poland?

- locate Europe on a map of the world.
- locate the region and key features of Malopolska on a map of Poland.
- plan journey and route to Malopolska.
- locate and identify key features of Krakow.
- identify contrasts between an urban and rural locality in Malopolska.
- locate and identify some of the characteristic features of Malopolska.
- describe what makes Malopolska region special.

Where does our lunch come from?

- knows and can locate countries from where some of their food originates.
- understand what food miles are.
- understand and able to discuss the environmental impact of transporting food over ever- increasing distances.
- knows the cycle of some foods from producer to consumer.
- understand that discharges and emissions from production, processing, packaging, and transport, contribute to 'greenhouse' gases.
- understand the terms 'import' and 'export'.
- understand how international trade can benefit richer countries and makes it difficult for poorer countries to escape from poverty.
- understand what 'Fairtrade' means and begins to understand that they, as shoppers, can make trade fairer.
- knows about some Fairtrade products and their journey from producer to consumer.



### Skills and understanding

- use maps of the locality to plan a route.
- draw a map of a short route.
- use standard symbols on a map.
- use four points of the compass confidently.
- begin to use atlases (maps, index and contents) and globes.
- use thematic maps.
- identify and match features on a globe and world map.
- locate significant places and major features on a globes and world maps
- identify significant places
- locate significant places and features and regions on maps of the United Kingdom.
- locate countries and cities of the United Kingdom using maps and satellite imagery.
- locate geographical regions of England, Wales, Scotland and Northern Ireland.
- describe human and physical characteristics of some geographical regions.
- locate significant places, major features and environments on a map of Europe.
- begin to ask/initiate/widen the scope of geographical questioning and offer their own ideas.
- develop the use of appropriate vocabulary to communicate findings.
- identify similarities and differences between areas.

Prime endpoints – Geography Year 3	Protocols for quality assurance
Locate mountains on a map.	
Understands how volcanoes are formed.	
Understands the positives and negatives of living near a volcano.	
Uses a key to identify places on a map.	
Name and locate counties and cities of the UK on a map.	

By the end of year 4 pupils will know and be able to:

#### Where on Earth?

- locate features on a world map and globe.
- understand/describe how the world has been represented on maps for different purposes and at different times.
- identify key features on different world map representations.
- identify day/night on a globe and world map.
- understands reasons for day/night and can describe the daily pattern of day/ night.
- understands differences in time around the world.
- knows about the Prime Meridian and the International Date Line.
- use zone information to predict times in different places.
- locate and describe key features and geographical regions of the United Kingdom.

#### RGS Bologna

- locate Europe on a world map.
- name and locate some of the countries in Europe, their capital cities, major rivers and mountain ranges.
- knows about the Mediterranean's landscape and climate.
- locate Italy.
- knows the differences between the regions of Italy.
- investigate the major cities of Italy.
- locate and identify some of the characteristic features of Bologna
- describe what makes Bologna special.

#### Why different weather? Weather around the world

- knows that weather is made up of seven elements.
- understand and use different techniques for measuring elements of weather.
- use confidently computer-based data logging to record some weather data.
- knows the difference between climate and weather.
- knows why we have night and day, and seasons.
- knows and understands time zones.
- knows about the climate and way of life in different climatic zones.
- locate climatic zones and specific places around the world on a map.
- knows what a biome is and that climate determines world biomes.
- knows the major biomes and where they are located.

#### What can we discover about our local area?

- explain the concept of change in the locality and give examples of current changes.
- describe how changes may be viewed in different ways by different people or groups.
- knows what 'sustainable' change is.
- plan a route around the locality to explore changes.
- create routes and communicate information using maps, compass points and grid references.
- follow a trail or route using compass points and grid references on a map.
- record changes in the locality using appropriate means, including mobile technology.
- present information gathered during fieldwork.

#### Global caretakers

- knows that the earth's atmosphere acts like a blanket, protecting the planet and enabling life to exist on the Earth.
- knows about the Earth's atmosphere, the gases in the atmosphere and its different layers.
- knows what fossil fuels are, how they were formed and why they are 'non- renewable' sources of energy.
- understand the impact of burning fossil fuels, including how they produce 'greenhouse' gases and how they impact on the climate.
- knows what the carbon cycle is and understands how people are changing the natural balance in the carbon cycle.

- knows some of the signs of global climate change.
- knows some of the ways in which climate change may affect people, landscapes and the environment.
- understand how reducing greenhouse gas emissions will contribute to solving global climate change.
- knows about some clean-air technologies and renewable energy sources.
- understand how they personally can make a difference, through simple actions such as reducing, reusing and recycling.

#### Skills and knowledge

- locate significant places and major features on globes and world maps.
  - use different types of map, at a range of scales, to identify and locate continents, regions and features.
  - make simple comparisons between map projections and types.
  - understand why time is different around the world.
  - understand why there are time zones around the world.
  - use zone information to predict times in different places.
  - investigate the seven elements which make up weather.
  - select and use a range of measuring instruments to measure elements of weather.
  - collect and record evidence and begin to analyse evidence and to draw conclusions
  - understand the difference between weather and climate.
  - understand seasons, day and night.
  - understand climatic zones and biomes.
- 
- locate significant places, features and environments on map of Europe.
  - locate the boundaries of different European countries.
  - use maps with increasing confidence, including key, symbols and scale.
  - use atlases, photos, web-based tools, oblique/vertical aerial photos.
  - start to question/annotate photos.
  - develop use of vocabulary.
  - begin to ask/initiate/widen the scope of geographical questioning and offer their own ideas.
  - begin to collect/record/analyse evidence and draw conclusion; make comparisons between two locations.
- 
- identify/explain different views.
  - explore geographical issues through discussion.
  - interpret sources of information for a purpose; present a point of view.
  - recognise that changes in geographical features can be contentious and controversial.
- 
- make a map of a short route with features in the correct order.
  - make a simple scale drawing.
  - use compass points/grid references to describe a locality/plan a route.
  - use eight compass points and grid references purposefully for practical route finding.
  - use standard symbols on a map.

Prime endpoints – Geography Year 4	Protocols for quality assurance
Uses atlases and maps to develop knowledge of major cities, countries and environmental features in Europe	
Knows how rivers are formed.	
Appreciates the impact of the physical environment on people's lives.	

By the end of year 5 pupils will know and be able to:

#### Greeks – biomes/climate zones

- locate and place Greece within the wider world.
- describe the climatic zones of Greece.
- understand how climate relates to biomes
- describe the physical landscape of Greece.

#### RGS North America

- name the countries in North America, their capital cities, major rivers and mountain ranges.
- locate the states of the USA and find their capital cities.
- identify key physical features of the USA
- describe how the Grand Canyon was formed.
- investigate different settlements
- describe the difference climatic zones in the USA
- consider the impact of droughts and floods.
- describe the different types of agriculture in the USA
- describe how New York has changed over time.

#### How is Alaska changing?

- locate and identify the countries and major regions of North America.
- identify Alaska in relation to climate zones, Arctic Circle and time zones
- make predictions about Alaska's features/ climate based on maps and images.
- gather information and raise questions about Alaska.
- use travel information and weather/ climate data to plan for a visit to locations in Alaska.
- able to explain the significance of key physical features, such as glaciers and earthquakes, and human features such as the Alaska pipeline.
- describe the effects and consequences of the Exxon Valdez oil spill.
- describe the cases for conservation and exploitation of the North Slope of Alaska.
- prepare a persuasive argument for a viewpoint in relation to the environment.

#### Earthquakes

- know why earthquakes occur
- know about major earthquakes
- understand the effect of earthquakes.

#### Investigating the Isle of Wight

- identify reasons why information about a locality (for example websites) might be created.
- discuss presentation/ impact of tourist and other promotional literature about a locality.
- produce a storyboard of ideas for a brochure about the local area.
- use a given route, identify sites and features to be recorded.
- use maps, compass points and grid references when planning a local route.
- create a geographical information pack about the locality, for a specific audience/purpose.
- identify key sites and features in the locality.
- share chosen information in an appropriate format with a wider audience.

#### Skills and knowledge

- knows and can locate features of California on a map.
- understand the climate, climatic zones and biomes of California.
- understand the importance of agriculture to the economy.
- know why California is a unique region due to its history.
- know about California's industries.
- describe the development of the electronics industry in Silicon Valley.
- understand issues surrounding disposal of waste, including toxic waste.
- identify an enquiry question linked to future developments in Silicon Valley.

- plan a holiday around California.
  - describe a journey across California in terms of key features.
  - use maps and aerial photography at a range of scales, to locate places and identify and delineate a region.
  - understand and explain different views of people, including themselves, about the use of finite resources and/or the disposal of toxic waste.
- 
- locate and name major circles of latitude and longitude that mark maps of the Earth.
  - identify and name major climate zones and biomes.
  - locate continents, countries and major regions on world maps and globes.
  - use climate and weather data in geographical enquiries.
  - know the difference between weather and climate
  - identify key human and physical features of a distant locality.
  - identify conflicts over land use in the local area and other localities.
  - identify different viewpoints about issues, including environmental issues.
- 
- interpret maps, images and digital resources to draw conclusions and answer geographical questions.
- 
- use maps, images and text to convey information about a locality.
  - use maps at different scales to plan routes.
  - use compass points and grid references to follow a route.
  - follow routes on OS maps
  - describe features shown on OS maps
  - use four-figure grid references
  - identify significant places and environments as stated within the KS2 National Curriculum

Prime endpoints – Geography Year 5	Protocols for quality assurance
Uses maps and atlases to locate countries and describe features studied.	
Uses four-figure grid references and correct geographical terms.	
Knows human and physical characteristics of North America.	
Understands earthquakes and plate tectonics.	
Describes and understands climate zones around the world.	

By the end of year 6 pupils will know and be able to:

#### Skills and knowledge

- Locate South America
  - Name the countries of South America, their capital cities,
  - Research areas of interest relating to South America – major rivers, major mountain ranges, deserts, time zones, landmarks, (physical and human).
  - Understand the difference between weather and climate
  - Understand the relationship between climate and latitude
  - Understand that climate determines biome
  - Identify the different climate zones / biomes in South America
  - Use climate graphs to compare the UK climate to that of Brazil
  - Focus on the rainforest climate and biome
  - Recognise the structure of the rainforest
  - Identify the global importance of rainforests – focus on Amazon
  - Identify the factors affecting rainforests and the role of humans
  - Recognise the global consequences of deforestation
  - Identify different types of settlement in Brazil (rainforest and favela)
  - Compare lives with UK
  - Understand the push / pull factors for migration.
  - Describe the journey of a river from source to mouth
  - Use vocabulary related to a river system
- 
- follow route on 1:50,000 OS map
  - locate places on a world map
  - recognise and use OS map symbols
  - understand height and slope - contour lines
  - confidently use a range of maps
  - use the scale bar to measure distances
  - use six-figure grid references
  - begin to use latitude and longitude on atlas maps
  - confidently identify significant places and environments as stated within the KS2 National Curriculum

Prime endpoints – Geography Year 6	Protocols for quality assurance
Uses atlases, maps and satellite images to investigate the geography of South America.	
Describes the features of a rainforest biome.	
Compares different types of human settlements in Brazil.	
Understands the global and local impacts humans have on the environment.	



By the end of Reception, pupils will know and be able to:

- talk about past and present events in their own lives and in the lives of family members
- know about similarities and differences between themselves and others, and among families, communities and traditions.

By the end of year 1 pupils will know and be able to:

- recognise similarities and differences between ways of life in different periods
- understand that transport has changed over time and is still changing and developing.
- begin to develop an understanding of the chronology of transport inventions
- begin to have an idea of past, present and future especially in relation to transport
- develop an awareness of the past and use appropriate vocabulary
- understand some of the ways in which we can obtain information about the past
- recognise significant historical events (invention of internal combustion engine, invention of space travel, first man in space, moon landings...)
- understand the different ways in which the past can be represented
- contribute to the class timeline showing changes in transport within living memory
- learn about events which were significant nationally or globally
- know where people and events fit within a chronological framework

### Spring

Prime endpoints – History Year 1	Protocols for quality assurance
Can distinguish between past and present.	
Answers questions from observations.	
Identifies the similarities and differences between ways of life in different periods within living memory.	
Knows about the life of a famous person within living memory.	
Understands how toys have changed over time within living memory.	

By the end of year 2 pupils will know and be able to:

- identify differences between places from different times
- identify questions about the great fire of London
- find answers to questions about the great fire of London
- place events in chronological order
- empathise with the way of life of people in the past and how they felt during the fire.
- know how people lived during the great fire of London
- recognise why people did things, why events happened and what happened as a result of using Samuel Pepys as an eyewitness
- know about the significant people from history of Britain Samuel Pepys
- use knowledge and understanding of the great fire of London to make up the dramas.
- write a dairy as an eye witness to the great fire.
- know about significantly with history of Britain - Guy Fawkes.

- know about significant people from history of Britain – Florence Nightingale
- know about people's way of life in the distant past – Florence Nightingale
- know about significant people from history of Britain - Mary Secole.
- compare aspects of life in different periods – Edith Cavell and Florence Nightingale
- understand who Louis Braille is and why he is famous
- know about significant people from history of Britain - Grace Darling
- investigate the seaside now
- understand how clothing changes at the seaside
- know about the entertainment available at the seaside
- know how we got to the seaside
- recognise that somethings stay the same and some things change
- create a timeline of holiday pictures past and present
- write about each period history at the seaside.

Prime endpoints (in red is change) – History Year 2	Protocols for quality assurance
Can find answers to questions about the great fire of London	
Can recognise why people did things, why events happened and what happened as a result of using Samuel Pepys as an eyewitness	
Knows about people's way of life in the distant past – Florence Nightingale	
Knows about significant people from history of Britain - Mary Secole	
Knows how to use a range of sources to find information.	

By the end of year 3 pupils will know and be able to:

understand what humans needed for survival in the Stone Age

understand what was found at Skara Brae and why it is important

understand what copper mining meant to the people of the Bronze Age

understand how evidence about Stonehenge can give us different answers about the past

understand how and why hillforts were developed in the Iron Age

understand how evidence about Druids can give us different answers about the past

### Summer

Prime endpoints – History Year 3	Protocols for quality assurance
understand what humans needed for survival in the Stone Age	
Uses historical sources to gain insight into the past.	
Recounts specific details and episodes from the past and recognises similarities and differences between periods.	
Understand the role of historical figures, such as Howard Carter.	
Knows and understands characteristics of life in Ancient Egypt, Stone Age, Bronze Age and Iron Age Britain.	



By the end of year 4 pupils will know and be able to:

build on existing knowledge about the Anglo-Saxons  
describe where, when and why the Anglo-Saxons invaded Britain  
explore Anglo-Saxon place names  
describe life in a typical Anglo-Saxon Village  
analyse and describe Anglo-Saxon artefact.  
explore Anglo-Saxon worship  
understand the Anglo-Saxon conversion to Christianity  
create a time and a key events in the Anglo-Saxon Britain.

know who the Romans were and the extent of their empire  
understand the duration of the Roman Empire and the extent of its technology  
understand Roman inventions  
understand where Romans came from  
understand about Roman life  
understand the differences between transportation in the time is it Rome and transport today  
understand how archaeology is used to search ancient items  
use artefacts to understand the uses of them  
create a fact file of knowledge about the Romans.

### Summer

Prime endpoints – History Year 4	Protocols for quality assurance
Carries out research into specific aspects of the Romans and Anglo-Saxons.	
Knows about the achievements of one of the earliest civilisations; the Romans.	
Knows about Britain's settlement by the Anglo-Saxons.	

By the end of year 5 pupils will know and be able to:

- understand what life was like before the Vikings came.
- establish a timeline of the Anglo-Saxon and Viking era.
- understand who the Vikings were and why they raided.
- **understand how the Vikings invaded and began to settle.**
- recognise the Viking gods.
- understand how a Viking takeover was avoided.
- form an opinion on whether King Alfred deserves to be called great (articulate and justify answers, arguments and opinions).
- **find out how and when England became a unified country.**
- **know how and when the Anglo-Saxon the Viking era came to an end.**

### Summer

- introduce Greece today and in ancient times.
- place the ancient Greek civilisation in time.
- **know that the ancient Greek civilisation occurred 'Before Christ'.**
- know that ancient Greece consisted of city states.
- identify features of life in Athens and Sparta.
- know what is meant by democracy.
- know some of the names of Greek gods and goddesses and to know their role in Greek life.

- know some of the beliefs and religious practices of the Greeks.
- be able to compare Greek beliefs with other cultures.
- recognise ancient Greek pottery as a primary historical source.
- infer information about Greek warfare from pots as a primary source.
- understand the significance of the Battle of Marathon.
- understand the role of theatre in Greek life.
- understand the influence of the Greek language on English today.
- understand the contribution of some famous Greek thinkers.
- understand the influence of Greek architecture.
- compare the ancient and modern Olympics.
- reflect on the influence of the Ancient Greeks

Prime endpoints – History Year 5	Protocols for quality assurance
Understands how the Vikings invaded and began to settle	
Can find out how and when England became a unified country	
Knows how and when the Anglo-Saxon the Viking era came to an end	
Understands the way of life, beliefs and achievements of the people who lived in Ancient Greece.	
Understands the influence Ancient Greece has had on the world today.	
Researches relevant facts from a range of sources.	

By the end of year 6 pupils will know and be able to:

Autumn

Spring

Prime endpoints – History Year 6	Protocols for quality assurance
Understands the effect of evacuation on children in World War 2.	
Understands major events of World War 2 and their effect on the lives of children.	
Recognises key features of Maya culture, religion and architecture.	
Recognises the legacy of the Maya.	



By the end of Reception, pupils will know and be able to:

- talk about past and present events in their own lives and in the lives of family members
- know that other children don't always enjoy the same things, and are sensitive to this
- know about similarities and differences between themselves and others, and among families, communities and traditions.

By the end of year 1 pupils will know and be able to:

- Can reflect on what it means to be an individual. *All About Me*
- Can reflect on how special occasions show what is important to people. *Special Occasions*
- Can reflect on how we should look after each other and other living creatures. *Natural World*
- Understands how special things show what is important to people. *Special Things*

Prime endpoints – R.E Year 1	Protocols for quality assurance
Reflects on themselves and their relationships.	
Develops a sense of awe and wonder for our natural world.	
Reflects upon why people are special to themselves and in major religions.	
Knows about some important religious celebrations.	

By the end of year 2 pupils will know and be able to:

- Understands that some stories can carry a special meaning or moral. *Special Stories*
- Recognises what special places can tell us about the beliefs, feelings, practices and values of people who go there. *Important Places*
- Understands the difference it makes to belong to a group or community. *Belonging*
- Understands that certain people have affected the lives of others. *Important People*

Prime endpoints – R.E Year 2	Protocols for quality assurance
Knows that stories have meaning and can affect our behaviour.	
Understands certain people have made a difference to the lives of others.	
Recognises that some places can be special.	
Shows a growing awareness of different religions.	
Knows how it feels to belong to a community.	

By the end of year 3 pupils will know and be able to:

- Understands about what religions teach about how life might be lived. *Ethics and Moral Issues*
- Understands how festivals express important religious beliefs. *Festivals*
- Understands what religions teach about God. *Symbolism*

- Understands how places of worship help believers feel closer to God. *Places of Worship*
- Understands how religions are similar and how they are different. *Community*
- Understands what rites of passage say about religious beliefs and attitudes. *Rites of Passage*

Prime endpoints – R.E Year 3	Protocols for quality assurance
Understands that religious teachings influence views of right and wrong.	
Explains how different religions celebrate particular festivals.	
Knows features of Christian and Muslim places of worship.	
Recognises the importance of symbols for religious communities.	
Shows respect for the beliefs and opinions of others.	

By the end of year 4 pupils will know and be able to:

- Understands how key religious people influence faiths today. *Founders and Prophets*
- Understands what religions and science say about creation. *Natural World*
- Knows some key teachings from sacred texts and how they are interpreted. *Sacred Texts*
- Understands some of the different beliefs of denominations. *Diversity in Religions*
- Understands how worship expresses different beliefs. *Worship*

Prime endpoints – R.E Year 4	Protocols for quality assurance
Shows awareness of how worship is carried out in different faiths.	
Shows sensitivity to the beliefs of others.	
Shows an understanding of how beliefs influence life.	

By the end of year 5 pupils will know and be able to:

- Can consider whether key religious people set a good example. *Founders and Prophets*
- Understands how holy books help believers in their daily lives. *Sacred Texts*
- Understands what festivals mean to individuals and communities. *Festivals*
- Understands how rites of passage affect individuals and communities. *Rites of Passage*
- Understands the role places of worship in faith communities. *Places of Worship*

Prime endpoints – R.E Year 5	Protocols for quality assurance
Understands why people need special buildings to worship in.	
Recognises that sacred texts influence the lives of individuals.	
Understands the role and influence of the founders of the main faiths.	
Understands the significance and relevance of rites of passage.	

By the end of year 6 pupils will know and be able to:

- Understands how worship helps believers in their daily lives. *Worship*

- Understands what different religions teach about God. *Symbolism*
- Understands the purpose and effect of pilgrimage. *Pilgrimage*
- Can discuss opinions on the purpose of life. *Natural World*
- Can discuss how different denominations can exist together. *Diversity in Religions*
- Can consider the relevance of religious teachings in the modern world. *Ethics and Moral Issues*

Prime endpoints – R.E Year 6	Protocols for quality assurance
Understands a variety of beliefs about God and has considered their own beliefs.	
Understands the concept of pilgrimage and its importance in a variety of faiths.	
Understands how religious beliefs influence people's responses to moral issues.	
Identifies symbols used in the major faiths.	



By the end of Reception, pupils will know and be able to:

- use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function
- use what they have learnt about media and materials in original ways, thinking about uses and purposes
- represent their own ideas, thoughts and feelings through design and technology

By the end of year 1 pupils will know and be able to:

Prime endpoints – D.T. Year 1	Protocols for quality assurance
Recognises characteristics of familiar products.	
Makes a simple design for a product.	
Makes a simple product with support.	
Uses appropriate materials and small tools and equipment safely.	
Makes comments about their work.	
Shows awareness of hygiene and simple techniques in food preparation.	

By the end of year 2 pupils will know and be able to:

### Understanding contexts, users and purposes

- work confidently within a range of contexts, such as imaginary, story-based, home, school, gardens, playgrounds, local community, industry and the wider environment
- state what products they are designing and making
- say whether their products are for themselves or other users
- describe what their products are for
- say how their products will work
- say how they will make their products suitable for their intended users
- use simple design criteria to help develop their ideas

### Generating, developing, modelling and communicating ideas

- generate ideas by drawing on their own experiences
- use knowledge of existing products to help come up with ideas
- develop and communicate ideas by talking and drawing
- model ideas by exploring materials, components and construction kits and by making templates and mock- ups
- use information and communication technology, where appropriate, to develop and communicate their ideas

### Planning

- plan by suggesting what to do next
- select from a range of tools and equipment, explaining their choices
- select from a range of materials and components according to their characteristics

### Practical skills and techniques

- follow procedures for safety and hygiene
- use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components
- measure, mark out, cut and shape materials and components
- assemble, join and combine materials and components
- use finishing techniques

### Own ideas and products

- talk about their design ideas and what they are making
- make simple judgements about their products and ideas against design criteria
- suggest how their products could be improved

### Existing products

- what products are
- who products are for
- what products are for
- how products work
- how products are used
- where products might be used
- what materials products are made from
- what they like and dislike about products

### Making products work

- about the simple working characteristics of materials and components
- about the movement of simple mechanisms such as levers, sliders, wheels and axles
- how freestanding structures can be made stronger, stiffer and more stable
- that a 3-D textiles product can be assembled from two identical fabric shapes
- that food ingredients should be combined according to their sensory characteristics
- the correct technical vocabulary for the projects they are undertaking
- how to name and sort foods into the five groups in The eatwell plate
- that everyone should eat at least five portions of fruit and vegetables every day
- how to prepare simple dishes safely and hygienically, without using a heat source
- how to use techniques such as cutting, peeling and grating

### Where food comes from

- that all food comes from plants or animals
- that food has to be farmed, grown elsewhere (e.g. home) or caught

### Food preparation, cooking and nutrition

- how to name and sort foods into the five groups in The eatwell plate
- that everyone should eat at least five portions of fruit and vegetables every day • how to prepare simple dishes safely and hygienically, without using a heat source • how to use techniques such as cutting, peeling and grating

Prime endpoints – D.T. Year 2	Protocols for quality assurance
Can identify, compare, investigate and evaluate existing products.	
Uses appropriate materials, techniques, small tools and equipment safely.	
Can produce a relevant design to fit specific criteria.	
Makes their product, following and adapting plans to overcome challenges.	
Can evaluate their product and suggest improvements.	
Shows awareness of hygiene and simple techniques in food preparation.	

By the end of year 3 pupils will know and be able to:

Prime endpoints – D.T. Year 3	Protocols for quality assurance
Investigates existing products.	
Uses a given design brief and design criteria to produce a final product.	
Uses appropriate small tools and equipment safely and accurately.	
Evaluates products against design criteria and suggests improvements.	
Uses a range of techniques e.g. spreading and mixing, to prepare food for a party, safely and hygienically.	

By the end of year 4 pupils will know and be able to:

#### Understanding contexts, users and purposes

Across KS2 pupils should:

- work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment
- describe the purpose of their products
- indicate the design features of their products that will appeal to intended users
- explain how particular parts of their products work

In early KS2 pupils should also:

- gather information about the needs and wants of particular individuals and groups
- develop their own design criteria and use these to inform their ideas

#### Generating, developing, modelling and communicating ideas

Across KS2 pupils should:

- share and clarify ideas through discussion
- model their ideas using prototypes and pattern pieces
- use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas
- use computer-aided design to develop and communicate their ideas



In early KS2 pupils should also:

- generate realistic ideas, focusing on the needs of the user
- make design decisions that take account of the availability of resources

### Planning

Across KS2 pupils should:

- select tools and equipment suitable for the task
- explain their choice of tools and equipment in relation to the skills and techniques they will be using
- select materials and components suitable for the task
- explain their choice of materials and components according to functional properties and aesthetic qualities

In early KS2 pupils should also:

- order the main stages of making

### Practical skills and techniques

Across KS2 pupils should:

- follow procedures for safety and hygiene
- use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components

In early KS2 pupils should also:

- measure, mark out, cut and shape materials and components with some accuracy
- assemble, join and combine materials and components with some accuracy
- apply a range of finishing techniques, including those from art and design, with some accuracy

### Own ideas and products

Across KS2 pupils should:

- identify the strengths and areas for development in their ideas and products
- consider the views of others, including intended users, to improve their work

In early KS2 pupils should also:

- refer to their design criteria as they design and make
- use their design criteria to evaluate their completed products

### Existing products

Across KS2 pupils should investigate and analyse:

- how well products have been designed
- how well products have been made
- why materials have been chosen
- what methods of construction have been used
- how well products work
- how well products achieve their purposes
- how well products meet user needs and wants

In early KS2 pupils should also investigate and analyse:

- who designed and made the products
- where products were designed and made
- when products were designed and made
- whether products can be recycled or reused

### Events and individuals

Across KS2 pupils should know:

- about inventors, designers, engineers, chefs and manufacturers who have developed groundbreaking products

### Making products work

Across KS2 pupils should know:

- how to use learning from science to help design and make products that work
- how to use learning from mathematics to help design and make products that work
- that materials have both functional properties and aesthetic qualities
- that materials can be combined and mixed to create more useful characteristics
- that mechanical and electrical systems have an input, process and output
- the correct technical vocabulary for the projects they are undertaking

In early KS2 pupils should also know:

- how mechanical systems such as levers and linkages or pneumatic systems create movement
- how simple electrical circuits and components can be used to create functional products
- how to program a computer to control their products
- how to make strong, stiff shell structures
- that a single fabric shape can be used to make a 3D textiles product
- that food ingredients can be fresh, pre-cooked and processed

### Where food comes from

Across KS2 pupils should know:

- that a recipe can be adapted by adding or substituting one or more ingredients
- that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world

In early KS2 pupils should also know:

- that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The eatwell plate
- that to be active and healthy, food and drink are needed to provide energy for the body

### Food preparation, cooking and nutrition

Across KS2 pupils should know:

- how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source

- how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking

In early KS2 pupils should also know:

- that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The eatwell plate
- that to be active and healthy, food and drink are needed to provide energy for the body

Prime endpoints – D.T. Year 4	Protocols for quality assurance
Investigates and evaluates existing products.	
Uses a given design brief and design criteria to produce a final product.	
Uses appropriate tools and equipment safely and accurately.	
Evaluates products against design criteria and suggest improvements.	

By the end of year 5 pupils will know and be able to:

Prime endpoints – D.T. Year 5	Protocols for quality assurance
Analyses existing products.	
Generates their own design criteria, considering appearance, purpose and construction.	
Uses a variety of appropriate techniques, materials and tools safely and accurately.	
Produces an evaluation of the finished product, identifying strengths and weaknesses of the design.	
Uses a range of techniques to prepare and cook savoury dishes safely and hygienically.	

By the end of year 6 pupils will know and be able to:

### Understanding contexts, users and purposes

Across KS2 pupils should:

- work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment
- describe the purpose of their products
- indicate the design features of their products that will appeal to intended users
- explain how particular parts of their products work

In late KS2 pupils should also:

- carry out research, using surveys, interviews, questionnaires and web-based resources
- identify the needs, wants, preferences and
- values of particular individuals and groups
- develop a simple design specification to guide their thinking

## Generating, developing, modelling and communicating ideas

Across KS2 pupils should:

- share and clarify ideas through discussion
- model their ideas using prototypes and pattern pieces
- use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas
- use computer-aided design to develop and communicate their ideas

In late KS2 pupils should also:

- generate innovative ideas, drawing on research
- make design decisions, taking account of
- constraints such as time, resources and cost

## Planning

Across KS2 pupils should:

- select tools and equipment suitable for the task
- explain their choice of tools and equipment in relation to the skills and techniques they will be using
- select materials and components suitable for the task
- explain their choice of materials and components according to functional properties and aesthetic qualities

In late KS2 pupils should also:

- produce appropriate lists of tools, equipment and materials that they need
- formulate step-by-step plans as a guide to making

## Practical skills and techniques

Across KS2 pupils should:

- follow procedures for safety and hygiene
- use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components

In late KS2 pupils should also:

- accurately measure, mark out, cut and shape materials and components
- accurately assemble, join and combine materials and components
- accurately apply a range of finishing techniques, including those from art and design
- use techniques that involve a number of steps
- demonstrate resourcefulness when tackling practical problems

## Own ideas and products

Across KS2 pupils should:

- identify the strengths and areas for development in their ideas and products

- consider the views of others, including intended users, to improve their work

In late KS2 pupils should also:

- critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make
- evaluate their ideas and products against their original design specification

### Existing products

Across KS2 pupils should investigate and analyse:

- how well products have been designed
- how well products have been made
- why materials have been chosen
- what methods of construction have been used
- how well products work
- how well products achieve their purposes
- how well products meet user needs and wants

In late KS2 pupils should also investigate and analyse:

- how much products cost to make
- how innovative products are
- how sustainable the materials in products are
- what impact products have beyond their intended purpose

### Events and individuals

Across KS2 pupils should know:

- about inventors, designers, engineers, chefs and manufacturers who have developed groundbreaking products

### Making products work

Across KS2 pupils should know:

- how to use learning from science to help design and make products that work
- how to use learning from mathematics to help design and make products that work
- that materials have both functional properties and aesthetic qualities
- that materials can be combined and mixed to create more useful characteristics
- that mechanical and electrical systems have an input, process and output
- the correct technical vocabulary for the projects they are undertaking

In late KS2 pupils should also know:

- how mechanical systems such as cams or pulleys or gears create movement
- how more complex electrical circuits and components can be used to create functional products
- how to program a computer to monitor changes in the environment and control their products
- how to reinforce and strengthen a 3D framework

- that a 3D textiles product can be made from a combination of fabric shapes
- that a recipe can be adapted by adding or substituting one or more ingredients

### Where food comes from

Across KS2 pupils should know:

- that a recipe can be adapted by adding or substituting one or more ingredients
- that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world

In early KS2 pupils should also know:

- that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The eatwell plate
- that to be active and healthy, food and drink are needed to provide energy for the body

In late KS2 pupils should also know:

- that seasons may affect the food available
- how food is processed into ingredients that can be eaten or used in cooking

### Food preparation, cooking and nutrition

Across KS2 pupils should know:

- how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source
- how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking

In late KS2 pupils should also know:

- that recipes can be adapted to change the appearance, taste, texture and aroma that different food and drink contain different substances – nutrients, water and fibre – that are needed for health

Prime endpoints – D.T. Year 6	Protocols for quality assurance
Analyses existing products.	
Generates own design criteria, considering appearance, purpose and construction.	
Uses a variety of appropriate techniques, materials, tools and equipment safely and accurately.	
Produces an evaluation of the finished product, identifying strengths and weaknesses of the design.	
Uses a range of techniques to prepare and cook savoury dishes safely and hygienically.	



By the end of Reception, pupils will know and be able to:

- recognise that a range of technology is used in places such as homes and schools
- select and use technology for particular purposes.

By the end of year 1 pupils will know and be able to:

### **Autumn**

#### **Logging On and Paint**

- use technology purposefully to create, organise, store, manipulate and retrieve digital content in the context of using a computer program to make a painting.
  - select a colour, paint with the selected colour, change to a different colour.
  - select a brush, paint with the selected brush, change to a different brush.
  - use the shape tools to create a shape, format the colour of a shape, fill an area with a colour.
  - undo an action, undo several actions, redo an action that has been undone.
  - select the text tool.
  - write a word or sentence.
  - format the colour and font of the text.
  - use different brushes.
  - use different colours.
  - use shapes and the fill tool.
  - add and format text.
  - use undo to correct mistakes.

#### **Beebots and Beebot apps**

- recognise how to organise algorithms (instructions) to reach a specified outcome (dancing Bee Bots)
  - write an algorithm.
  - program a Beebot,
  - use instructions to make an algorithm that makes my Bee Bot move
  - explain mistakes in my algorithm
  - identify solutions to correct my algorithm

### **Spring**

#### **Scratch Jr**

- learn all the features of Scratch Jr and the different things you can create
- recognise the features of Scratch Jr and their potential to create
- use the features of Scratch Jr to create
- describe the features of Scratch Jr and their ability to create
- explain the features of Scratch Jr and their ability to create

#### **Navigating Websites**

- navigate websites
- have control using a mouse or touchpad
- recognise key features of a website e.g. home page
- give opinions on positive and negatives of different websites
- use a mouse
- explain where the home button is on a website
- explore different features of a website

## **Summer**

### **Computers All Around Us**

- give a simple definition of what a computer is.
- sort computers from other machines
- recognise the different types of computers at school and help to make a record of how many computers are in the building.
- understand that computers are a huge part of our lives now.
- know various different uses of computers in school, at home and at work.
- recognise icons on the computer screen which help us to do things.
- understand a basic idea of what the internet is.
- know that our devices need to connect to the internet so that we can use it.
- complete a simple computer quiz.
- understand that we need to be careful about how we behave and what information we share online.

### **E-Book creation**

- design and create an ebook, using pictures, writing and sound.
- share their writing and ideas with the rest of the class.
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- design and create an ebook, using pictures, writing and sound.
- share their writing and ideas with the rest of the class.

### **E-Safety**

#### **Know how to be safe online**

Know how to be safe online with adverts

Know how to be safe online with pop ups

Know how to be safe online with chat facility

Prime endpoints – Computing Year 1	Protocols for quality assurance
Logs on and locate programs on the computer independently.	
Recognises how to stay safe online.	
Uses a camera to take a digital photograph.	
Opens, manipulates and saves a digital image.	
Plans a set of instructions to control a floor robot.	
Combines text and images to create a document.	



By the end of year 2 pupils will know and be able to:

## **Autumn**

### **Logging On and Paint**

- use a computer software program to recreate art.
- change the colour and size of the dots.
- insert lines that are different sizes into my work.
- fill areas with different colours.
- draw lines and fill spaces with colour to recreate a piece of art.
- produce at least 3 different shapes using a computer program.
- rotate, resize and colour shapes.
- arrange different shapes to recreate a piece of art.
- produce lighter and darker shades of a colour.
- match colours to particular moods and emotions.
- make two versions of a piece of art using different shades.
- combine the styles of at least two artists to create my own artwork.
- recall and use computer skills to produce my own piece of artwork.
- review the work of others and offer suggestions for improvement.

## **Beebots**

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- recognise algorithms and creating and debugging
- identify algorithms and creating and debugging
- describe and explain algorithms and creating and debugging

## **Spring**

### **Creating Animation**

- explore puppet pals
- create a storyboard
- retell a story
- create an animation

## **Computer Explorers**

- identify a variety of ways of doing research on the internet..
- find a variety of information and present it in PicCollage.
- identify and utilise ways of finding further information on the internet.
- use commands in Google Maps
- find a variety of different travel times and locations in Google Maps
- compare different travel times to locations, using Google Maps.
- research information using google.
- present the information that they find in a digital mind map.
- identify ways in which they can ensure the information they have found is trustworthy.
- create a simple online quiz
- use a mind map program on a website
- reflect on ways that they created a more user friendly quiz.
- experience a google expedition to another city.
- create their own expedition using various google tools.
- identify how tools like these can help people in the workplace, in education or at home.
- take part in an exploratory geocache treasure hunt/ Pokémon Go adventure.
- use directions and GPS to help them solve the treasure hunt clues.
- create a Pokémon go game themselves, or create a treasure hunt for their friends around school.

## **Summer**

### **Coding Apps**

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- create algorithms to solve problems
- use IF statements
- create algorithms to move around lightbot
- use repeat loops (Procedure 1)
- create algorithms to solve problems.
- put a series of instructions together to create a program.

### **Scratch Jnr 2**

- explain that coding means giving instructions to a computer to make things happen.
- open Scratch Jr on an iPad / tablet and add and delete characters and backgrounds.
- make a character move by using a start block and movement blocks.
- make characters move at different speeds
- code a program which makes the sun set and disappear.
- add a background to my program and change scenes when the sun has set.
- add text to the background of a program.
- use repeat blocks to make characters do actions a few times.
- use sound a movement code blocks to make characters look like they are dancing.
- use a bump block to make another character move.
- use repeat end blocks to make a program keep on working unless I press stop
- use speech code blocks to make different characters say different things.
- add message blocks so that characters speak and reply to each other

## **E-Safety**

### **Finding Treasure Safely**

- apply their awareness and developing knowledge of safety and rules and healthy lifestyle skills to on and offline situations.
- use appropriate vocabulary and clear sentences to write their own account.

### **Design and Fill a Treasure Chest**

- show respect for others both on and offline.
- exhibit a growing awareness through their interactions both on and offline of the behaviours which lead to positive relationships and mutual respect.
- appreciate the range of ICT available in and outside of school and will use it responsibly.
- work independently or cooperatively considering a variety of factors to produce a model for a specific purpose.

### **Song and Dance**

- internalise the message of safer internet use and its applications.
- express their ideas and emotions through singing and dancing.
- perform to an audience.

### **Internet Safety Poster**

- recognise and manage risk and have the ability to make safer choices.
- communicate any concerns they may have while using the internet to a responsible adult.
- produce a list of clear instructions supported by pictures and illustrations.

Prime endpoints – Computing Year 2	Protocols for quality assurance
Knows how to use the internet and keep themselves safe online.	
Can combine text, images and sound, and can save, edit and print work.	
Is able to create simple animations.	
Can give instructions to a variety of programmable devices.	
Knows how to send and receive emails.	

By the end of year 3 pupils will know and be able to:

## **Autumn**

### **Introduction to Scratch**

- add and delete sprites and backgrounds from the library.
- paint my own sprites and backgrounds.
- grow and shrink sprites.
- rename sprites.
- make each sprite move when a key is pressed.
- make sprites bounce off the edge of the screen.
- use forever blocks to keep sprites moving once a button has been pressed.
- use the INFORMATION feature of sprites to set them off at different angles.
- use the right mouse button to duplicate code.
- use the INFORMATION feature of each sprite to change the speed at which they move.
- use a motion block to make the shark sprite chase another sprite around the screen.
- find a way to make the shark stay a little way behind the sprite it is chasing: so it looks like it is following the sprite.
- add PEN UP, PEN DOWN AND CLEAR script blocks and make a different key make each one happen.
- set the pen to a larger size and a different colour.
- add a sequence of scripts which make a sprite draw a 4 sided shape when its key is pressed.
- use a LOOKS block to make the shark sprite change its costume to the closed mouth costume when it touches the sprite which it is chasing.
- make the shark sprite change back to its original costume when it starts chasing the other sprite again.
- PAINT a new sprite and add text to write instructions.
- make a second button costume for my sprite and change the costume to the instructions when it is clicked.
- make it change back again after 10 seconds.

### **Coding**

- learn to drag and drop

## **Spring**

### **Introduction to Kudo**

- experiment with and explore a new piece of software to make a landscape and add objects and characters to it.
- use a story board to plan ideas for a world or game I would like to create.
- code objects to do a variety of different actions.
- create a world with a mixture of different landscapes.
- add objects, creatures and robots to my world.
- code objects to move.
- code objects and characters to react to each other when they come close to one another.

### **E Book Creation**

- create a front cover for my book
- use PowerPoint to insert text and images.
- create an eBook
- add writing and images to PowerPoint.
- add animations to a PowerPoint
- explain what a Slide Show is.
- give constructive feedback.

## **Summer**

### **Pivot animator**

- understand that animations are produced by viewing a sequence of frames in order and that the brain perceives this as a moving image.
- become acquainted with Pivot Stick Figure Animator and to produce a first animation
- understand that animations are smoother if they have more frames with smaller movements
- learn how to add and animate multiple stick men
- learn how to import a background and to make the character appear to interact with it
- learn how to add and animate different figure types (including animals)
- tell a story through their animation
- learn how to produce and animate their own stick figure
- learn how to create an image in one program and use it as a background in Pivot Stick Figure Animator
- complete an assessment task within set parameters

### **Scratch – Music**

- spot opportunities for repeat loops.
- add sprites from the MUSIC category.
- add musical notes to sprites.
- choose a set of notes to make a tune for each instrument sprite.
- simplify my code by using repeat loops.
- use the PLAY NOTE code block to make a tune.
- use different beat lengths to change my tune.
- use repeat loops to make my tunes longer.
- explore the notes in the PLAY NOTE blocks to make the tune Frere Jacques using a list of notes.
- change the lengths of the notes to make the tune sound right.
- look for patterns in my notes and use repeat loops to use less code.
- explore the notes in the PLAY NOTE blocks to make the tune Frere Jacques using a list of notes.
- change the lengths of the notes to make the tune sound right.
- look for patterns in my notes and use repeat loops to use less code.
- use repeat loops to make a few instrument sprites play a tune when the GREEN FLAG is pressed.

### **E-Safety**

#### **FullFilm video of safety online**

Prime endpoints – Computing Year 3	Protocols for quality assurance
Combines images and text to produce a presentation.	
Understands how to stay safe when using the internet.	
Plans, composes, takes, and manipulates a photograph.	
Knows what is and is not safe to share over email.	
Uses the internet to research a topic.	
Uses simulation software to change variables and see the outcome.	

By the end of year 4 pupils will know and be able to:

## **Autumn**

### **Scratch Drawing Project**

- recognise the pen tool
- explore different drawing algorithms
- recognise that reordering an algorithm changes its outcome.
- understand how to clear the screen so that the instruction is in an algorithm
- look at the rule in which to create regular shapes
- put multiple shapes together in one algorithm to create a picture.
- instruct a sprite to move and draw a picture.

### **Creating Art Using MS Word**

- INSERT, RESIZE, ROTATE, COPY AND PASTE using the right mouse button and COLOUR shapes using MS Word.
- set the paper size, orientation and page margins.
- insert, resize and copy / paste shapes to begin a picture.
- add a triangle, colour it, give it soft edges and reflect it.
- insert a star shape, give it a glow effect and shrink it.
- use the right mouse button to copy and paste my objects and then resize them, if needed.
- add hills and trees using the FREEFORM drawing tool.
- make a longboat bow using the FREEFORM drawing tool.
- flip my bow horizontally to make the stern of my longboat.
- use the CTRL key and mouse to select a group of objects.
- use the Group option to treat a group of objects as one object.
- finish my picture using all the skills demonstrated over the half term.

## **Spring**

### **Network explores**

- give a simple definition of what a computer network is.
- name different parts of a network and understand what jobs they perform in the running of a big computer network.
- understand that the internet is simply a network of networks which connects computers together all around the world.
- understand that our home and school networks require a router to join them to the internet.
- understand that data on the internet will always try to travel along the fastest route and that the fastest route isn't always the shortest route.
- complete short knowledge quiz about this unit. Use for Assessment of Learning and understanding

### **Coding with Kudo**

- sketch out a label a basic plan for a maze runner game.
- plan the aim and way to win the game.
- add walls to a terrain and set their heights.
- use a variety of brush sizes and textures to create an interesting world
- add objects / characters to my world.
- change object settings, such as size, height and speed.
- code a mini game on Kodu using a variety of coding options.
- write a clear set of helpful instructions.
- finish off the look of my game – tidying up the landscape and features to make it look as professional as possible.
- add improvements to my game

## **Summer**

### **Scratch Chatbots**

- give simple definitions for Artificial Intelligence and chatbots.
- consider some of the pros and cons of Artificial Intelligence and chatbots.
- make a flow chart algorithm which can be used to code a chatbot.
- add a backdrop and at least one sprite to be used in a quiz.
- use SAY blocks to introduce and explain a quiz.
- code a sprite to ask the player's name and use it in a reply.

- make a sequence of code which:
  - Asks a question.
  - Says "well done" before moving on to the next question if the correct answer is given.
  - Say "try again" and repeats the question if they give the wrong answer.
- duplicate working code and adjust it to code new questions and answers.
- test and debug my duplicated code.
- change my sprite's costumes and the backdrop when a question is answered correctly or incorrectly and then change them back again afterwards.

### I-Movie project

- describe how to use the internet safely, respectfully and responsibly.
- explain what copyright is.
- plan a film on e-safety
- create a storyboard
- write a film script
- use an iPad to film scenes from a film.
- edit my film
- create a piece of music for a soundtrack.

### E-Safety

#### An internet that we trust

- describe and recognise some methods used to encourage people to buy things online.
- give examples of when and why it is important to understand the motive behind online content.
- use questions to help decide what can and cannot be trusted online.

Prime endpoints – Computing Year 4	Protocols for quality assurance
Recognises how to be safe online and make others aware of the dangers.	
Designs and controls a computer character.	
Manipulates colour, effect, size, position of a photo.	
Uses simulations to make a change and predict the outcome.	
Creates, edits and improves an animation for a known story.	

By the end of year 5 pupils will know and be able to:

## **Autumn**

### **Scratch Paddle Board Game**

- change the background in scratch
- programme my ball to move continuously
- programme my paddle to move with the mouse.
- create an algorithm to set the ball bouncing off the paddle
- programme the ball to stop
- add scores to my game
- create variable to my game

### **Sketch Up**

- try out new software and try out the tool bars.
- use the tools in sketch u to create a house.
- use sketch up to create more detailed houses.
- use a tape measure tool to create more accurate drawings
- design the inside of a house.
- design my own house or interior.

## **Spring**

### **Cloud Computing**

- explain in simple terms what cloud computing is and to be able to give at least one good and bad side of cloud computing.
- change the paper size to A3.
- insert shapes and text boxes and resize them.
- insert text into shapes.
- change font styles, colours and sizes.
- colour fill and colour the outlines of text boxes and shapes.
- use the Wrap Text option to place shapes in front of text so that shapes can “float on top of the page” and not move with the text on the page.
- use the Undo button
- create a poster about cloud computing using shapes and text boxes.
- upload your own poster to a Cloud Storage account.
- create a QR code for your poster.

### **Kudo Racing Game**

- program a character in Kodu
- describe what the different tools do.
- use trial and error methods to solve fortress defence
- design a race track
- program a character to move.
- program a character to win.
- personalise my game
- add additional challenges, objects and obstacles to my game
- edit world settings to create more interest.
- add computerised opponents
- make modifications and improve my game
- give constructive feedback and opinions.

## **Summer**

### **Databases**

- identify cells using rows and columns.
- type text and numbers into cells.
- use the SUM function to add numbers together.
- use the SUM function to perform further calculations.

- use the fill tool to copy formulas correctly.
- insert a bar or column graph.
- format aspects of a bar or column graph.
- sort data appropriately.
- use formulas to calculate totals and averages.
- sort data by different criteria.
- add extra data, including inserting rows or columns.
- edit existing data and be aware of the results.
- create a formula to solve a specific calculation (using figures and cell references).
- replicate formulas over several cells.
- check calculations for errors.
- interpret data and make comparisons.
- select and add items from a given list.
- calculate totals based on price and quantity of items.
- calculate a running total.
- calculate an amount remaining from a budget.
- plan the requirements for a new spreadsheet.
- make decisions on formatting to improve the appearance.
- think of original ideas for using a spreadsheet.
- create a range of suitable formulas for a purpose.

### Scratch Lapse Time Animation

- use the GLIDE TO command to make sprites move around the stage.
- make sprites glide at different speeds.
- add turns to the glide blocks to make the sprite face in different directions
- use BROADCAST MESSAGE and RECEIVE MESSAGE coding blocks to make a chain of events happen.
- use multiple COSTUME changes to create stop motion animation.
- add backgrounds and create / add sprites for my Scratch animation.
- begin to code my animated scene I can add backgrounds and create / add sprites for my Scratch animation.
- begin to code my animated scene
- code my flower sprites to grow.
- add reset keys to all my sprites.
- use the DUPLICATE function to copy one finished sprite.
- code my animated scene.
- use CHANGE COSTUME, GLIDE TO and BROADCAST MESSAGES in my scene.

### E-Safety

#### An internet that we trust

- describe and recognise some methods used to encourage people to buy things online.
- give examples of when and why it is important to understand the motive behind online content.
- use questions to help decide what can and cannot be trusted online.

Prime endpoints – Computing Year 5	Protocols for quality assurance
Creates a game using programming software (Scratch).	
Uses formulae to solve problems in Excel.	
Recognises how to communicate safely online.	
Creates an audio-visual presentation using editing software.	
Uses a variety of programmes to present information.	



By the end of year 6 pupils will know and be able to:

## **Autumn**

### **Scratch Pacman Game**

- create a background
- program my ball to move
- create a rule to prevent a ball moving through walls
- explain what the coordinates mean in scratch
- use variables to create a score
- explain what a variable is.
- use a loop to make something work continuously
- explain how to make points decrease
- use backgrounds to create additional levels.
- explain what needs changing to work on a second level

### **Creating an advert or e-safety**

- think critically about how video is used to promote a cause
- storyboard an effective advert for a cause
- work collaboratively to shoot suitable original footage and source additional content, acknowledging intellectual property rights
- work collaboratively to edit the assembled content to make an effective advert.
- recognise
- identify
- describe
- explain

## **Spring**

### **Dragon's Den**

- pitch for Dragon's den a game that you have designed
- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output.
- e logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.
- select, use and combine a variety of software (including internet services) on a range of digital services to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

## **Summer**

### **Social Media and E-Safety**

- work with a group to make a definition of what social media is.
- work with a group to give opinions, backed by arguments to support or / and oppose social media.
- use the Internet to research information about social media.
- use key words to search for information and then check results for relevant information.
- set up a PowerPoint presentation – using a photo for a background, making a cover slide and choosing fonts and colours to goof effect.
- follow a series of challenges to present information in a PowerPoint presentation.
- upload my PowerPoint presentation to a cloud storage folder and create a QR code to share it with my parents / guardians.

### **Year Book Creation**

- manage or contribute to large collaborative projects, facilitated using online tools
- write and review content

- source digital media while demonstrating safe, respectful and responsible use
- design and produce a high-quality print document.

### E-Safety

#### Play Like Sam

- identify signs of manipulative, pressurising or threatening behaviour online.
- respond safely if they think someone is trying to manipulate, pressure or threaten them.
- understand their rights online, and respect those of others.
- take measures to control their privacy and digital footprint.
- get help from an appropriate source if they need it.

Prime endpoints – Computing Year 6	Protocols for quality assurance
Identifies how to stay safe online when using social media.	
Uses Scratch to code more complex animations.	
Models ideas using computer aided design (CAD) software.	
Creates entries appropriate for a blog.	
Records and edits a track using audio editing software.	



By the end of Reception, pupils will know and be able to:

- safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function
- use what they have learnt about media and materials in original ways, thinking about uses and purposes
- represent their own ideas, thoughts and feelings through art

By the end of year 1, pupils will know and be able to:

### Drawing

share ideas about mark making using a variety of media and create own tools and surfaces on which to work

investigate ways of communicating ideas to others by using a range of drawing materials and techniques

discuss the work of others, talk about own work and suggest ways of improving it use stories as a starting point

respond visually showing attention to texture by using appropriate marks.

### Painting

investigate and use painting materials, techniques and processes to communicate ideas in both imaginative and experimental work

explore ideas about painting, suggest ways of improving work and say what they think and feel about their own work and the work of others

respond to the work of an artist, by producing work in their style and discussing similarities between their image and their own.

### Printmaking

investigate and use printmaking materials, techniques and processes to communicate ideas in both imaginative and experimental work

explore ideas about resist and relief block printmaking, suggest ways of improving their work and say what they think about their own work and the work of others

### Collage

explore ideas about collage and use natural and made materials to communicate ideas and meanings

say what they think and feel about their own and others' work and suggest ways of improving their own work.

### Textiles

explore and use natural and made materials to communicate ideas in weavings and fabric resist pieces

comment on differences in their own and others' work and suggest ways of improving their own work

### 3D

explore ideas using both made and natural objects to investigate line and pattern in 3D work

comment on similarities and differences between their own and others' work

respond to a story by manipulating clay to produce different forms and suggest ways of improving their own work

use clay to produce a tile with an impressed pattern and make a mould for a plaster cast.

Prime endpoints – Art Year 1	Protocols for quality assurance
Investigates ways of communicating ideas using a range of drawing materials.	
Explores the use of paint in imaginative and experimental work.	
Explores relief and resist block printmaking.	
Uses natural and man-made materials to create a collage.	
Uses natural and man-made materials to explore weaving.	
Manipulates clay to produce a 3D form in response to a story.	

By the end of year 2 pupils will know and be able to:

### Drawing

explore mark making using paints, brushes and other tools and investigate and use materials and processes to communicate ideas and meaning  
explore expressive mark making in response to music and begin to explore and record objects and arrangements from different viewpoints  
suggest ways of improving their work and say what they think and feel about their own work and the work of others.

### Painting

investigate the use of painting to communicate ideas and meanings in response to music and comment on their own and others' work  
suggest improvements to their work and explore ideas about shape, pattern and colour using different brush strokes and painting media  
incorporate the painting techniques that they have learned.

### Printmaking

investigate and use resist and relief printmaking materials and processes to communicate ideas  
say what they think and feel about their own and others' work and suggest ways of improving their own work.

### Collage

investigate and use collage materials and processes to communicate ideas about line, shape and colour  
work with others to develop large-scale responses  
say what they think and feel about their own and others' work and suggest ways of improving their own work.

### Textiles

explore ideas through making dip dyes, rubbings, relief block prints and card wraps and respond to individually selected reproductions from different times and cultures  
say what they think and feel about their own and others' work and suggest ways of improving their own work.

### 3D

explore and communicate ideas in response to Aboriginal Art  
manipulate clay to produce imaginative forms in response to stories  
comment on differences in others' work and suggest ways of improving their own work.

Prime endpoints – Art Year 2	Protocols for quality assurance
Explores expressive mark-making using paints, brushes and other tools.	
Explores shape, pattern and colour, using different brushstrokes.	
Develops relief printing skills by overprinting and using layers.	
Uses collage materials to communicate ideas about line, shape and colour.	
Explores ideas through dip-dye, rubbings and relief block prints.	
Applies a surface design on to a 3D object.	

By the end of year 3 pupils will know and be able to:

### Drawing

explore ideas, collect examples and respond to marks made by Vincent Van Gogh  
communicate their ideas and observations, comment on their own work and that of others and suggest improvements that could be made  
respond using drawing and resist techniques to produce an image from their imagination  
discuss different forms of patterning and record, enlarge and extend them with regard for line, shape and colour.

### Painting

investigate visual qualities of shape and colour, experiment with painting techniques and understand how colour can be mixed and applied  
comment on differences and similarities between their own and others' work, including artists, and suggest improvements to their own images.

### Printmaking

use rollers to produce work using different marks, ink-up a slab and produce monoprint designs on different surfaces  
reflect on and record what they have achieved and comment upon their own work and that of others  
adapt and improve their own work according to its purpose  
understand the idea of repeat patterning.

### Collage

use information about the work of artists and explore how line, colour, shape and space can be organised and combined to create responses to artists' work  
compare and comment on ideas, methods and approaches used in their own and others' work and adapt their work as it progresses.

### Textiles

explore ideas about how pattern and colour can be organised and combined  
collect visual information and experiment with dip dye, collograph and plasticine relief blocks to make repeat print patterns  
comment on similarities and differences between their own and others' work and adapt and improve their own work according to its purpose.

### 3D

explore ideas and collect information to produce 3D painted forms in response to works of art; experiment with brown, gummed tape, clay slabs and paper strips to produce 3D forms; comment on differences and similarities on their own and others' work and suggest improvements to their own work.

Prime endpoints – Art Year 3	Protocols for quality assurance
Experiments with different forms of patterns using line, shape and colour when drawing and painting.	
Uses a variety of methods, processes, and materials to design and make images and artefacts with increasing control over equipment and tools.	
Explores pattern and colour using textiles and printing.	
Develops and adapts their ideas by giving an opinion on their own work and that of others.	
Produces 3D painted forms.	

By the end of year 4 pupils will know and be able to:

### Drawing

make a variety marks in response to descriptive vocabulary when listening to a story  
observe closely and discuss natural forms and produce detailed analytical drawings  
use landscape as a starting point for artwork, developed in response to an image by a famous artist  
when discussing their work and the work of others they will be able to suggest improvements that could be made develop fine control of tools and be able to produce detailed drawings.

### Painting

explore ideas about colour and investigate a variety of painting methods and techniques  
collect visual and other information and record this to inform future work  
comment on ideas, methods and approaches used in their own and others' work, including artists, and adapt and improve their own work.

### Printmaking

produce monoprints and Press Print to reflect the linear aspect of traditional African designs  
make a collograph relief block, which focuses on shapes found in African designs, and use this for printing on a variety of surfaces to produce repeated pattern work  
discuss their own work and that of others and make improvements to their work as it progresses.

### Collage

explore ideas and collect visual and other information in responding to the work of Matisse, Bacon and Warhol  
explore how visual qualities can be organised and combined for different purposes to communicate their ideas  
comment on ideas, methods and approaches used in their own and others' work and adapt and improve their work.

### Textiles

explore and experiment with monoprinting techniques; combine a variety of dip dye, monoprinting, knotting and wrapping techniques in responding to the work of Michael Brennand-Wood; comment on ideas, methods and approaches used in their own and others' work and adapt and improve their own work.

### 3D

explore ideas about shoes; collect visual and other information to develop their ideas; experiment with materials and techniques; comment on ideas, methods and approaches used in their own and others' work and adapt and improve their work.

Prime endpoints – Art Year 4	Protocols for quality assurance
Explores, collects and develops ideas from observation and imagination in a sketchbook and selects these as a starting point.	
Uses a variety of combinations of methods, processes and materials to design and make images and including collage with control over equipment and tools.	
Understands in detail the visual elements including knowledge of work from different times.	
Develops and adapts an idea by giving an opinion on their own work and that of others.	

By the end of year 5 pupils will know and be able to:

### Drawing

share their ideas about mark making, and are able to investigate drawing materials and techniques to communicate their ideas to others  
use a viewfinder to select lines and shapes from the work of a famous artist and use these in their images  
say what they think about their work and that of others and show that they can suggest ways of improving and developing images  
investigate working in the negative and use this technique to respond to the work of a famous artist.

### Painting

share their ideas about painting techniques and use painting materials and techniques to communicate their ideas to others  
discuss their work and that of others and produce images in response to well-known artists especially focusing on the use of colour in their work  
explore patterns and record, enlarge, match and extend them to realise their intentions.

### Printmaking

produce three colour reduction prints using Press Print and discuss, understand and record the process of reduction printing, producing annotated examples of their work  
discuss what they and others have done and make improvements to their work  
combine previously learned processes and techniques  
research and discuss the work of printmakers and develop responses through their own work.

### Collage

organise and combine visual and tactile qualities of materials and develop explorations, ideas and responses in their work  
compare and comment on ideas, methods and approaches in their own and others' work and adapt and improve their work as it progresses.

### Textiles

experiment with and combine materials and processes to make multiple unit hangings, batiks and layered collage images  
explore ideas and record processes; compare and discuss methods and ways of working, relating these to their own ideas  
adapt and improve their work as it progresses.

### 3D

explore ideas and collect visual and other information to develop their work; organise and combine visual and tactile qualities; experiment with and use their knowledge of sculptural techniques and processes to communicate ideas and experiences; compare and comment on ideas, methods and approaches in their own and others' work; adapt and improve their own work as it progresses.

Prime endpoints – Art Year 5	Protocols for quality assurance
Uses a viewfinder to select shapes for use in their work.	
Creates paintings in response to the work of well-known artists.	
Produces three-colour reduction prints using Press-Print.	
Combines visual and tactile qualities of materials in their collage work.	
Experiments with a range of materials and processes to create a textile project.	
Explores the use of Modroc as a sculptural material.	



By the end of year 6 pupils will know and be able to:

### Drawing

investigate drawing materials and techniques to communicate their ideas to others focusing on different visual elements of art  
say what they think about what they, and others, have produced and suggest ways of improving the work  
investigate the portrait imagery of famous artists and comment on the ideas, methods and approaches in their work  
work within a group and be able to show an understanding of tone when working on an enlarged facial image.

### Painting

compare and comment on the work of Cubist painters and use techniques of combining and organising images to produce work in their style  
apply different techniques using colour and understand the ideas and approaches different artists use in their work  
able to use a sketchbook to organise and explore ideas and review their own work and that of others  
work within a group and be able to co-operate with others on producing an enlarged group image and discuss similarities between this and the work of a well-known artist.

### Printmaking

use their own drawings as a starting point for producing unique state prints  
compare ideas and approaches in their own work and that of others and use this as a basis for further developments  
record the processes and techniques that they have used and chart the development of their printmaking through annotated examples  
have an understanding of the batik process and be able to produce an image in response to Chinwe Chukwuogo – Roy.

### Collage

explore ideas about the work of Gustav Klimt and Pablo Picasso's Cubist work; collect visual and other information by observing and recording from first-hand and secondary sources  
use materials and processes to communicate ideas, methods and approaches in their own and others' work and  
discuss, adapt and improve their work to realise their intentions.

### Textiles

explore ideas about the work of Norman Foster, Antonio Gaudi, Hundertwasser and North American Indians: collect visual and other information and select and develop ideas  
use materials and processes to communicate ideas and meanings  
compare and comment on ideas, methods and approaches used in their own and others' work, relating these to the  
purpose of the work: adapt and improve their work to realise their intentions.

### 3D

collect visual and other information to help them develop ideas for their work and record from direct observation directly into 3D form; develop a series of pieces, adapting and improving their work as it progresses; compare and comment on ideas, methods and approaches in their own and others' work and adapt and improve their work to realise their intentions.

Prime endpoints – Art Year 6	Protocols for quality assurance
Investigates drawing techniques demonstrating an understanding of tone.	
Uses colour and line to paint in the style of Patrick Caulfield.	
Uses a range of collage materials and processes to explore the work of Klimt.	
Uses own drawings as a starting point for producing unique state prints.	
Record from direct observation into a 3D form.	
Create textile work in response to the work of other artists.	



By the end of Reception, pupils will know and be able to:

Early learning goal – self-confidence and self-awareness

- be confident to try new activities, and say why they like some activities more than others
- be confident to speak in a familiar group, will talk about their ideas, and will choose the resources they need for their chosen activities
- say when they do or don't need help.

Early learning goal – managing feelings and behaviour

- talk about how they and others show feelings, talk about their own and others' behaviour, and its consequences, and know that some behaviour is unacceptable
- work as part of a group or class, and understand and follow the rules
- adjust their behaviour to different situations, and take changes of routine in their stride

Early learning goal – making relationships

- play co-operatively, taking turns with others
- take account of one another's ideas about how to organise their activity
- show sensitivity to others' needs and feelings, and form positive relationships with adults and other children.

Early learning goal – health and self-care

- know the importance for good health of physical exercise, and a healthy diet, and talk about ways to keep healthy and safe
- manage their own basic hygiene and personal needs successfully, including dressing and going to the toilet independently

Early learning goal – people and communities

- talk about past and present events in their own lives and in the lives of family members
- know that other children don't always enjoy the same things, and are sensitive to this
- know about similarities and differences between themselves and others, and among families, communities and traditions.

Year 1

Health and Wellbeing

- understand the importance of and how to maintain personal hygiene.
- know about good and not so good feelings, a vocabulary to describe their feelings to others and simple strategies for managing feelings.
- communicate their feelings to others, to recognise how others show feelings and how to respond.
- recognise what they like and dislike, how to make real, informed choices that improve their physical and emotional health, to recognise that choices can have good and not so good consequences.
- know how some diseases are spread and can be controlled and the responsibilities they have for their own health and that of others.
- know what constitutes a healthy lifestyle including the benefits of physical activity, rest, healthy eating and dental health.
- know about change and loss and the associated feelings (including moving home, losing toys, pets or friends)
- know about rules for and ways of keeping physically and emotionally safe (including safety online, the responsible use of ICT, the difference between secrets and surprises and understanding not to keep adults secrets) ; road safety, cycle safety and safety in the environment (including rail , water and fire safety)
- know about people who look after them, their family networks, who to go to if they are worried and how to attract their attention, ways that pupils can help these people to look after them.
- recognise that they share a responsibility for keeping themselves and others safe, when to say, yes, no, I'll ask and I'll tell.
- know that household products, including medicines, can be harmful if not used properly.

- think about themselves, to learn from their experiences, to recognise and celebrate their strengths and set simple but challenging goals.
- know about the process of growing from young to old and how peoples' needs change. To know about growing and changing and new opportunities and responsibilities that increasing independence may bring.
- know the names for the main parts of the body (including external genitalia) the similarities and differences between boys and girls.
- know the difference between secrets and surprises and the importance of not keeping adults secrets, only surprises.
- judge what kind of physical contact is acceptable, comfortable, unacceptable and uncomfortable and how to respond (including who to tell and how to tell them)

### Relationships

- know that there are different types of teasing and bullying, that these are wrong and unacceptable.
- know how to resist teasing or bullying, if they experience or witness it, whom to go to and how to get help.
- listen to other people and play and work cooperatively (including strategies to resolve simple arguments through negotiation)
- offer constructive support and feedback to others.
- communicate their feelings to others, to recognise how others show feelings and how to respond.
- recognise how their behaviour affects other people.
- identify their special people (family, friends, carers), what makes them special and how special people should care for one another.
- understand that people's bodies and feelings can be hurt (including what makes them feel comfortable and uncomfortable)
- think about themselves, to learn from their experiences, to recognise and celebrate their strengths and set simple but challenging goals.
- recognise what is fair and unfair, kind and unkind, what is right and wrong.
- recognise when people are being unkind either to them or others, how to respond, who to tell and what to say.
- identify and respect the differences and similarities between people.

### Living in the Wider World

- understand how to contribute to the life of the classroom. To help construct, and agree to follow, group and class rules and to understand how these rules help them.
- know that people and other living things have needs and that they have responsibilities to meet them (including being able to take turns, share and understand the need to return things that have been borrowed).
- understand that they belong to various groups and communities such as family and school.
- understand what improves and harms their local, natural and built environments and about some of the ways people look after them.
- know that money comes from different sources and can be used for different purposes, including the concepts of spending and saving.
- know about the role money plays in their lives including how to manage their money, keep it safe, choices about spending money and what influences those choices.

Prime endpoints – PSHE Year 1	Protocols for quality assurance
Recognises the importance of friendships, sharing and playing appropriately.	
Recognises what is right and wrong, or fair and unfair and explains why.	
Understands the importance of keeping healthy.	
Understands and practises some skills of a good communicator, including basic listening skills.	
Recognises when things go wrong, and knows some strategies to stay positive.	

## Year 2

### Health and Wellbeing

- understand and give examples of things they can choose themselves and things that others choose for them;
- explain things that they like and dislike, and understand that they have choices about these things;
- understand and explain that some choices can be either healthy or unhealthy and can make a difference to their own health.
- understand the importance of and how to maintain personal hygiene.
- know how some diseases are spread and can be controlled and the responsibilities they have for their own health and that of others.
- understand what constitutes a healthy lifestyle including the benefits of physical activity, rest, healthy eating and dental health.
- know the names for the main parts of the body (including external genitalia) the similarities and differences between boys and girls.
- Know the rules for and ways of keeping physically and emotionally safe (including safety online, the responsible use of ICT, the difference between secrets and surprises and understanding not to keep adults' secrets; road safety, cycle safety and safety in the environment (including rail, water and fire safety)) About people who look after them, their family networks, who to go to if they are worried and how to attract their attention, ways that pupils can help these people to look after them
- recognise that they share a responsibility for keeping themselves and others safe, when to say, yes, no, I'll ask' and 'I'll tell.
- know that household products, including medicines, can be harmful if not used properly.
- explain what privacy means;
- know that you are not allowed to touch someone's private belongings without their permission;
- give examples of different types of private information.
- think about themselves, to learn from their experiences, to recognise and celebrate their strengths and set simple but challenging goals.
- understand about change and loss and the associated feelings (including moving home, losing toys, pets or friends)
- understand about the process of growing from young to old and how people's needs change. To know about growing and changing and new opportunities and responsibilities that increasing independence may bring
- identify which parts of the human body are private;
- explain that a person's genitals help them to make babies when they are grown up;
- understand that humans mostly have the same body parts but that they can look different from person to person.

### Relationships

- recognise the difference between secrets and surprises and the importance of not keeping adults' secrets, only surprises.
- listen to other people and play and work cooperatively (including strategies to resolve simple arguments through negotiation)
- offer constructive support and feedback to others
- judge what kind of physical contact is acceptable, comfortable, unacceptable and uncomfortable and how to respond (including who to tell and how to tell them)
- understand that there are different types of teasing and bullying, that these are wrong and unacceptable.
- know how to resist teasing or bullying, if they experience or witness it, whom to go to and how to get help.
- know that there are different types of teasing and bullying, that these are wrong and unacceptable
- communicate their feelings to others, to recognise how others show feelings and how to respond.
- recognise how their behaviour affects other people.
- identify their special people (family, friends, carers), what makes them special and how special people should care for one another.

- understand about good and not so good feelings, a vocabulary to describe their feelings to others and simple strategies for managing feelings.
- understand that people's bodies and feelings can be hurt (including what makes them feel comfortable and uncomfortable)
- recognise what is fair and unfair, kind and unkind, what is right and wrong.
- identify and respect the differences and similarities between people.

#### Living in the Wider World

- know how to contribute to the life of the classroom.
- help construct, and agree to follow, group and class rules and to understand how these rules help them.
- understand that people and other living things have needs and that they have responsibilities to meet them (including being able to take turns, share and understand the need to return things that have been borrowed)
- understand that they belong to various groups and communities such as family and school.
- understand what improves and harms their local, natural and built environments and about some of the ways people look after them.
- know that money comes from different sources and can be used for different purposes, including the concepts of spending and saving.
- know about the role money plays in their lives including how to manage their money, keep it safe, choices about spending money and what influences those choices.

By the end of year 2 pupils will know and be able to:

Prime endpoints – PSHE Year 2	Protocols for quality assurance
Identifies and uses a variety of strategies to maintain positive relationships.	
Can explain why they think something is right, wrong, fair or unfair.	
Knows how to recognise their emotions and those of others.	
Understands ways of managing challenges, risks and change.	

Prime endpoints – PSHE Year 3	Protocols for quality assurance
Works independently and in groups collaborating effectively.	
Recognises and respects similarities and differences between people within the class.	
Listens to and responds appropriately to other peoples' views and opinions.	
Understands the different roles people serve in the local community.	
Recognises emotions connected to taking responsibility for their own actions.	

Prime endpoints – PSHE Year 4	Protocols for quality assurance
Can work both independently and in groups, collaborating effectively.	
Recognises and respects similarities and differences between people within the community.	
Listens to and responds to, and respects other peoples' views and opinions.	
Knows how to maintain a healthy lifestyle, and make informed life choices.	
Understands the role money plays in their own and others' lives.	

Prime endpoints – PSHE Year 5	Protocols for quality assurance
Demonstrates respect and empathy towards others.	
Understands how to use the internet safely.	
Understands the role money plays in their own and other's lives, including how to manage their own money.	
Understands the system of democracy in the UK.	
Understands the physical and emotional changes that take place during puberty.	

By the end of year 6 pupils will know and be able to:

Prime endpoints – PSHE Year 6	Protocols for quality assurance
Recognises how to stay safe and manage risks appropriately.	
Recognises strategies to maintain positive and healthy relationships.	
Can suggest ways to cope with changes, especially when changing schools.	
Understands how their bodies change as they grow.	
Understands the importance of caring for our environment.	



By the end of year 3 pupils will know and be able to:

### (Getting to Know You)

say hello for different times of day.  
use formal or informal language appropriately.  
use gestures to support my conversation.

introduce myself to someone else.  
ask another person their name.  
use gestures to support my conversation

use 'Comment ça va?' as a question.  
choose the appropriate phrase to say how I feel.

say goodbye in a variety of ways.  
use formal and informal language.

say the numbers 0-10 in French.  
listen and repeat carefully.  
join in when the numbers are in a song.  
use music to help me remember new words.

use number words in my sentences.  
make up new sentences.  
ask how old someone is.  
say my own age.

### (All about ME)

demonstrate my understanding of instructions in French.  
follow instructions when I hear them.

listen to and read the names of different body parts.  
repeat words carefully.  
sing 'Heads, Shoulders, Knees and Toes' in French.  
point to the correct part for each word.

listen to action words and show what to do.  
join in a game using the action vocabulary.

name different colours in French.  
listen to and repeat words carefully.

ask what's in the wardrobe.  
answer questions about what's in the wardrobe.  
name clothes in French.  
know that un and une mean masculine or feminine nouns.

use et to join words in a list.  
name clothes and accessories in French.  
Say what I am wearing.  
ask someone else what they are wearing.



## (Food Glorious Food)

understand and join in with a story.  
recognise and repeat key vocabulary in a story.

count items or use 'some' for amounts.  
ask politely for something.

use definite articles le/la/les to mean 'the'.  
choose the correct article when talking about food.  
say if I like or dislike a food.  
make my preferences stronger.

can describe what colour something is.  
can add words to be more exact about a colour.

can identify a size adjective.  
can begin to place adjectives correctly in a sentence.  
can recognise that an adjective doesn't always have the same spelling.  
can begin to spell adjectives based on grammar rules.

know the vocabulary I need to talk about food  
can apply my learning to have short conversations

## (Family and Friends)

identify family members.  
say 'My...'  
use voici to explain who's who in a picture.

use gestures to help me remember pets vocabulary.  
link sounds and meanings.  
make sentences about myself using je.  
use tu to ask questions about a partner.

listen carefully to modelled pronunciation.  
copy what I hear.  
use a familiar tune to recall new sounds.  
join in with a song to practise new language.

recognise how sentences can change to fit the subject.  
use 'il' and 'elle' for 'he' and 'she'.  
use a vocabulary bank.  
make new sentences by swapping key vocabulary.

say letters of the French alphabet with good pronunciation.  
ask for and give spellings using the French alphabet.

name rooms in a house or flat.  
swap key words to make new sentences.

## (Our family)

say the names of objects around the classroom.  
follow instructions to identify classroom objects.  
use the phrase Il/Elle est là or Ils/Elles sont là in response to a question.  
ask my partner a question.

say the names of objects in a pencil case.  
 use the sentence J'ai un /une ..... dans ma trousse.  
 convert le to un and la to une.  
 write sentences converting le/la to un/une.

say the names of subjects at school.  
 say whether I like/dislike subjects,  
 answering the questions 'Qui aime... ? Qui n'aime pas... ?  
 say if I like a subject using.. 'J'aime.....'  
 say if I don't like a school subject using 'Je n'aime pas.....'

demonstrate my understanding of instructions in French.  
 follow instructions when I hear them

say the names of familiar places  
 follow instructions to show I know the names of familiar places around school  
 name places around school in French  
 ask / answer the question 'où es-tu?'

say the names of objects in a pencil case  
 use the infinitive form of verbs eg J'aime lire.  
 write sentences using infinitive verbs.  
 use the vocabulary of around school and what I like to do to write sentences with a preposition.

## (Time)

count up to 31.  
 use good pronunciation.  
 use words I already know to help me understand new vocabulary.  
 make predictions about vocabulary.

listen carefully to a set of vocabulary.  
 understand, say and order the days of the week.

read and say the months of the year.  
 show my understanding by ordering the months correctly.

make new sentences by swapping key vocabulary.  
 make my sentences questions or statements.  
 compare English and French sentences.

say the date using day, number and month.  
 identify some important French festivals.

say the date using day, number and month.  
 change my question or answer sentence to make it past or future tense.

Prime endpoints – MFL Year 3	Protocols for quality assurance
Understands and responds to simple rhymes, stories, songs and classroom instructions.	
Imitates pronunciation of sounds and takes part in short exchanges using simple words and phrases such as greetings.	
Compares the language to English and use context to determine meaning.	
Understand and say some basic topic related vocabulary such as numbers, colours, days, months, classroom objects, fruits and animals.	

By the end of year 4 pupils will know and be able to:

**(All around town)**

listen to and repeat names of some French towns and cities.  
compare and contrast French towns with places I know.  
ask and answer questions to find out where someone lives.

listen to new language and repeat with increasing accuracy  
identify typical places in my town  
describe my new town

identify spellings or sounds I know in new words.  
say the tens numbers to 100.

identify spellings or sounds I know in new words.  
use word patterns to predict what the next number will be.  
say any number from 1-100 with support.

listen to and repeat common French expressions.  
construct a simple sentence.  
say an address clearly.

sort vocabulary into topic groups.  
suggest further English words in a vocabulary set.  
use a bilingual dictionary to translate the word I want.

**(On the move)**

name different ways of travelling.  
identify types of transport using words and gestures.

ask how someone goes to school.  
tell someone else how I go to school.

give and respond to simple direction instructions.  
read and say words containing the French spelling 'ch', pronounced /sh/.

say a sequence of movements.  
follow instructions about direction and actions.

ask for and give directions to places in town.  
substitute different familiar vocabulary to vary my sentences.

match subject pronouns with the right form of a verb.  
talk about how different people travel to places in town.

**(Going Shopping)**

ask a question to a partner Aimes-tu....?  
answer a question orally using: J'aime... Je n'aime pas... J'aime beaucoup... J'aime un peu...  
answer questions in writing sentences in French.  
answer a question in writing using: J'aime ... Je n'aime pas... J'aime beaucoup... J'aime un peu...

know that: le changes to du; la changes to de la; l' changes to de l' and les changes to des.  
write phrases/sentences starting with Je voudrais and choose the correct form of 'some'.

adjectives and place them after the noun  
change adjectives to the feminine when needed  
answer the question Avez-vous...? With the response Oui, j'ai...in a complete sentence

answer the question Avez-vous...? With the response Non, Je n'ai pas...in a complete sentence

answer the question Ou, puis-je acheter...?  
use the appropriate form for at (au or a la)

answer the question 'C'est combien...? (regarding items in a shop)  
answer the question using the phrase 'C'est ... euros'

greet and respond  
ask and answer questions.

### (Where in the world)

answer a question in French.  
use a model sentence and substitute key words.  
write an answer to a question which starts with 'Quelle est?'  
use a model sentence and substitute key words, in writing.

say whether nouns are masculine or feminine  
choose the correct preposition: en for feminine countries, au for masculine countries, à for islands

use an English/French dictionary to translate a country name and use the translation in a sentence.  
use an online translator to translate a country name and use the translation in a sentence.

say which continent a country is from.  
choose the correct preposition: 'en' for continents.

name at least ten animals in French.  
say a sentence starting with J'ai vu....  
know the past tense phrase 'J'ai vu....'  
use the past tense in a sentence e.g. 'J'ai vu un lion.'

use a model sentence and substitute key words  
write a sentence from memory  
use the pronoun il in the right place  
use the pronoun elle in the right place

### (What's the time)

say and write a sentence to tell the time – o'clock and - half past

start a sentence using a time connective, stating at what time something happened  
write a whole sentence choosing from a list of simple sentences

read a TV schedule to answer the question 'Qu'est-ce qui passe à la télévision à...?'  
write a question to give an answer

say and write a sentence to tell the time – quarter past and – quarter to

read a school timetable and understand the words for subjects and days  
choose the correct word (avant or après) when comparing to subjects

count in fives to sixty in French  
calculate the difference in minutes between two times and give and answer in French

## (Holidays and Hobbies)

answer questions orally, using a modelled sentence. I answer questions by writing a sentence in French.  
use the third person plural of être. use ils sont in a sentence.

state what the weather is like using the phrase il fait, followed by an adjective or a noun. state what the weather is like using the phrase il, followed by a verb.

give the weather forecast to my partner. give the weather forecast to a larger group.

say whether country nouns are masculine or feminine.

choose the correct preposition: en for feminine countries, au for masculine countries.

say where and how I am going on holiday, using a sentence.

say who I am going on holiday with

use the possessive adjectives 'ma' for feminine

use the possessive adjective 'mes' for plural family members

answer the question 'Quel est ton sport préféré ?' orally

write answers about the class's favourite sports.

answer the question 'Tu aimes...?' Orally, using one of four sentence starters

answer the question 'Tu aimes...?' In writing, using one of the four sentence starters

Prime endpoints – MFL Year 4	Protocols for quality assurance
Talks about their family and pets.	
Counts to 69.	
Names and talks about the body parts and clothes they are wearing.	
Answers simple questions such as what is your name?	
Speaks clearly, with correct pronunciation.	

By the end of year 5 pupils will know and be able to:

(Getting to Know You)

recall a range of vocabulary topics from my previous learning.  
use different skills to show what I have learned.

use 'je sera' to refer to my future  
show how French future tense is different to English  
use the speaker's body language to help me understand what they are saying  
listen and respond appropriately to what it said

say the names of the accents found in the French alphabet.  
ask for spellings of unfamiliar words.  
give a spelling correctly, using the French alphabet pronunciation.

recognise that some adjectives are different depending on gender.  
choose a masculine or feminine adjective to match the subject.  
find suitable vocabulary in a bilingual dictionary.  
make a new sentence by substituting specific words.  
describe emotions.

say what is 'going to' happen.  
show how the near future tense is made of aller plus infinitive.  
use a range of strategies to help me follow a text.  
make predictions about a story.

recall key vocabulary and apply it to my writing.  
change a sentence to suit what I want to say.  
select from a vocabulary bank for a particular theme.  
choose nouns, verbs or adjectives.

(All about Ourselves)

name different parts of the body.  
join in or respond when someone speaks to me.

describe myself.  
put the adjective after the noun.  
make the noun and adjective 'agree'.  
make an adjective plural if necessary.

ask what someone is doing.  
say what I am doing.  
identify a range of verbs.

write sentences in the 3rd person (he and she).  
add detail to a description of someone's clothes with a colour adjective.  
make the adjective and noun 'agree.'

ask how someone is feeling.  
recognise written masculine/feminine adjectives.  
listen to and repeat a word carefully.  
say how I am feeling using an emotion word.

follow a simple story.  
join in with repeated phrases.  
recognise known words and use them to help with new language.  
ask and answer questions about health.

### (That's Tasty)

take part in a role play about drink choices.

ask the question *Qu'est-ce que vous désirez boire ?* and answer starting with *Je voudrais....*

read and understand a chart which gives opening and closing times in French.

answer a question and ask what times a restaurant opens and closes on a particular day.

write words from memory.

write a sentence about what I would like for breakfast.

use a modelled sentence to express my preference for a sandwich.

write a sentence from memory to express my preference for a sandwich.

use adjectives to describe food, using the correct masculine or feminine form.

use adjectives to describe food, using the correct plural form.

use the correct French form for 'some'.

use the correct French form for 'some' to describe which pizza I would like.

### (Family and Friends)

join in a traditional song. find rhyming words and sound patterns.

recognise and use possessive adjectives. I know the difference between 1st and 3rd person.

explore how English and French grammar are different.

name a variety of farm animals.

compare the sounds they make in English and French.

join in the repeated phrases in a song.

use my prior learning to help me understand new words.

name different types of home.

describe the size of a house.

identify unknown words in a familiar sentence.

use a dictionary to translate words I want to know into French.

find the meaning of new French words in my dictionary.

choose appropriate adjectives to describe an animal.

alter the spelling to agree with the gender of the noun.

give an opinion about an animal.

say why I have that opinion.

construct a simple sentence.

join two sentences using an appropriate conjunction.

recognise the sound /eh/ in different words.

can pronounce *et* and *mais* correctly in a sentence.

### (School Life)

recall a range of vocabulary topics from my previous learning.

use different skills to show what I have learned.

use '*je serai*' to refer to my future

show how French future tense is different to English

use the speaker's body language to help me understand what they are saying

listen and respond appropriately to what is said

say the names of the accents found in the French alphabet.  
 ask for spellings of unfamiliar words.  
 give a spelling correctly, using the French alphabet pronunciation.

ask a question about how many sides a shape/shapes have.  
 answer a question, saying how many sides shape/shapes have

ask a question using the phrase: Excusez-moi, est-ce que je peux...  
 give an answer to the question, choosing from set answers.

prepare a conversation with a partner asking in French where objects are and give an answer.  
 confidently present my conversation to my class.

### (Time Travelling)

recognise number words in spoken sentences  
 explain how larger numbers are often described by combining smaller number words  
 say numbers larger than 100  
 use numbers in a sentence correctly

say the high-frequency verb 'avoir' in a sentence correctly  
 match the subject and verb  
 identify numbers in a written sentence  
 demonstrate my understanding of a sentence

understand when someone is saying a date  
 translate a date from French into English and vica versa

understand when someone is saying a date  
 give the year that some key historical events happened in France

construct a past tense sentence with the passé composé  
 identify auxiliary and past participle verbs

conjugate the auxiliary verb to match the subject  
 change the past participle of the main verb to agree with the number and gender of the subject  
 say when significant people in French history were born and died

Prime endpoints – MFL Year 5	Protocols for quality assurance



By the end of year 6 pupils will know and be able to:

(Let's Visit a French Town)

make sentences with habiter (to live).  
choose the correct form to go with the subject of the sentence.  
listen to and join in a song.  
recognise key words and phrases and respond.

vary the noun and verb appropriately for my purpose.  
talk about what there is to do in my town.  
use gestures to support what I am saying.

use a bilingual dictionary.  
identify places in a French town or city.  
use simple prepositional phrases.  
ask/answer questions about where a place is.

use appropriate words for number operations.  
compare and order numbers up to 1000.

listen for familiar vocabulary.  
use prior learning to help me make informed guesses.

recognise and use ordinal numbers.  
apply a spelling pattern to make a new word.  
join in with a song or poem to help me remember new language.

(Let's Go Shopping)

greet, respond and say goodbye.  
ask and answer questions.

use entre to describe the position of a shop.  
use the correct masculine or feminine form of à côté de to describe the position of a shop.

use the correct order to describe nouns, using foncé and clair.  
use the masculine and feminine form of colours when necessary.

take part in role play.  
ask and answer questions about the cost of items.

locate the relevant information from a list.  
answer questions by writing money amounts in French.

use the French I have learned to take part in a 'Shopping Experience'.  
ask and answer questions.

(This is France)

use a model sentence and substitute key words  
create sentences independently using online translators/dictionaries to help

ask a question about distances  
give an answer, writing the numbers in words

use a map to work out the direction between cities up to 4 compass points and write a sentence using the correct word for the direction

write a sentence in French about things that can be done when visiting Paris

create a leaflet which encourages people to visit Paris

use a chart to decide whether to use *était* or *est*.  
write sentences using *était* or *est*.

choose the correct form of an adjective describing nationality.  
write sentences describing a person's nationality.

#### (All in a Day)

say and write a sentence to tell the time – o'clock and half past  
say and write a sentence to tell the time – quarter past and quarter to

tell the time in French: o'clock, half past, quarter past, quarter to  
use French phrases which mean the same as a.m. and p.m.  
follow patterns to conjugate regular verbs ending in -er, -ir and -re  
translate simple phrases conjugating in present tense

say and write a sentence to tell the time in 5-minute interval; past the hour and to the hour

say and write a sentence to tell the time in 24-hour time – o'clock, half past, quarter past/to

take part in role play and interpret arrival and departure boards, asking and answering questions.  
read and interpret arrival and departure boards and write answers to questions about flights.

Read a school timetable and state the times that lessons start / finish  
Read a school timetable and state what the first and last lessons of the day are

Prime endpoints – MFL Year 6	Protocols for quality assurance
Practises and develops use of spoken language.	
Translates short passages, using existing knowledge and dictionaries.	
Writes a range of sentences and phrases connected to everyday life.	



By the end of Reception, pupils will know and be able to:

- show good control and co-ordination in large and small movements
- move confidently in a range of ways, safely negotiating space
- handle equipment and tools effectively, including pencils for writing
- ~~represent their own ideas, thoughts and feelings through dance.~~

By the end of Year 1 pupils will know and be able to:

- ~~Dance imaginatively~~
- ~~Change rhythm, speed, level and direction in dance or gymnastics~~
- Throw underarm, bounce & catch ball by self & with partner. Kick/stop a ball using a confident foot while static. Run straight and on a curve and sidestep with correct technique
- Begin to follow some simple rules.
- Use varying speeds when running. explore footwork patterns, explore arm mobility,
- Explore different methods of throwing.
- Practise short distance running

Prime endpoints – P.E. Year 1	Protocols for quality assurance
Performs simple athletic and ball skills with basic control and co-ordination.	
Produces a short sequence of movements in gymnastics.	
<del>Copies and performs simple rhythmic movements in dance.</del>	
Knows how to exercise safely and how their bodies feel during an activity.	
Is active throughout the lesson and willing to practise to improve.	

By the end of year 2 pupils will know and be able to:

- ~~Dance and~~ perform gymnastics with control and co-ordination.
- Can select and apply a range of skills with control and consistency.
- Perform and repeat longer sequences with clear shapes and controlled movement
- Pupils should participate in team games, developing simple tactics for attacking and defending
- Pupils should be taught to use running, jumping, throwing and catching in isolation and in combination.

Prime endpoints – P.E. Year 2	Protocols for quality assurance
Knows how to exercise safely and can explain its effects on the body.	
Can perform simple athletic and ball skills with control.	
Is able to balance and co-ordinate movements in gymnastics.	
Can work alone, with a partner, or as part of a team.	
Is able to suggest ways to improve their own and others' performance.	

By the end of year 3 pupils will know and be able to:

- ~~Respond to music in time & rhythm, respond to music to express a variety of moods & feelings.~~
- Perform a variety of movements and skills with good body tension. Link actions together so that they flow in running, jumping and throwing activities.
- In netball and basketball make a series of passes to team mates moving towards a scoring area. Show some signs of using a chest pass and shoulder pass.
- In football begin to dribble a ball making small touches, know where space is and try to move into it and begin to send a football to someone on the team.
- Begin to show how to hold a hockey stick and which side to use. Dribble the ball keeping it close, using the correct side of stick. Use a simple push pass to another team mate
- Run in different directions and at different speeds, using a good technique.
- Improve throwing technique, reinforce jumping techniques.

Prime endpoints – P.E. Year 3	Protocols for quality assurance
Works co-operatively demonstrating an awareness of safety.	
Controls a ball in different situations.	
Demonstrates skills in a variety of invasive, striking and hitting games.	
<del>Shows the ability to choose movements which fit the music.</del>	
Shows fluency and control when performing in gymnastics.	

By the end of year 4 pupils will know and be able to:

- Use combination of skills confidently in sport specific contexts. Perform a range of skills fluently and accurately in practice situations.
- ~~To swim competently, confidently and proficiently over a distance of at least 25 m. To use a range of strokes effectively (EG: front crawl, backstroke and breaststroke)~~
- Perform safe self-rescue in different water-based situations.
- In gymnastics, perform at least 3 different rolls, travel and balance using floor and apparatus.
- In athletics select and maintain a running pace for different distances.
- Practise throwing with power and accuracy
- In tennis begin to tap a ball over a net allowing for a bounce, hit technique, bring racquet to meet the ball for a forehand and backhand hit.
- In netball make decisions regarding which is the best type of pass to use, know where positions are allowed on a court and mark another player and begin to attempt interceptions.

Prime endpoints – P.E. Year 4	Protocols for quality assurance
Works cooperatively demonstrating an awareness of safety.	
Demonstrates skills in a variety of netball, tennis and athletic events.	
Shows fluency and control in Dance and Gymnastics.	
Demonstrates confidence in the water.	
Uses recognised arm and leg actions on their front or back.	
<del>Swims at least 25 metres and can swim for sustained periods of time without aids.</del>	

By the end of year 5 pupils will know and be able to:

- Effectively transfer skills and movement across arrange of activities and sports. Perform a range of skills consistently and effectively in challenging or competitive situations.
- Recognise how some aspects of fitness apply to team games e.g. power, flexibility and cardiovascular endurance
- Collaborate as a team to choose, use and adapt rules in games
- Perform ~~fluent dances and~~ gymnastic routines with characteristics of different styles/eras, adapt & refine (in pair/group), dances that vary direction, space & rhythm
- In netball and basketball use all three passes (chest, shoulder & bounce) correctly. Use a range of speeds within a game to support a team in scoring and defend a player and make some successful interceptions
- Send a football to someone on the team, using different parts of foot accurately and use a range of ways to keep a ball under control (foot, knee, head, and knowing which one due to where ball is coming from).
- In rounders choose and use a range of simple tactics in isolation and in a game context.
- In tennis demonstrate the correct swing technique when hitting the ball over a net sometimes showing control over the hit

Prime endpoints – P.E. Year 5	Protocols for quality assurance
Works cooperatively and creatively, demonstrating an awareness of safety.	
Identifies the effects of exercise on the body.	
Plans and performs skills with control and fluency in <del>dance and</del> gymnastics.	
Demonstrates a variety of skills with precision and control – invasive, net and ball, striking and hitting games, athletic events.	
Accepts advice and uses it to improve the quality of their work.	

By the end of year 6 pupils will know and be able to:

- Perform skills in pressure situations and efficiently make adjustments to technique when required.
- ~~Create & perform dances in a variety of styles consistently be aware of & use musical structure, rhythm & mood & can dance accordingly, use appropriate criteria & terminology to evaluate performances~~
- Develop flexibility, strength, technique, control and balance through gymnastics.
- To play competitive games, modified where, appropriate
- In netball know which pass is best to use and when in a game, draw defender away to create space for self or team and apply basic principles suitable for attacking and defending
- In tag-rugby be able to evade and tag opponents, running at speed, changing direction at speed. Play effectively in attack and defence to score points against opposition whilst supporting player with the ball
- In hockey use a range of passes knowing which one depending on the distance of the pass and know when to defend and what defence skills could be used.
- In athletics pupils should continue to apply and develop a broader range of skills, learning how to use them in different ways and to link them to make actions and sequences of movement.
- In cricket to use a range of tactics for attacking and defending in role of bowler, batter and fielder

#### Elms coaching

- To dribble at pace with the intention of shooting
- To understand why shooting and rebounding are as important in basketball
- To understand the importance of defending as well as attacking at speed in basketball
- To understand and effectively keep possession when playing netball High 5's
- To play and understand High 5's netball
- To bat and bowl effectively to individuals and fields tactically
- To understand how to keep your wicket and protect stumps
- To set a field based on individuals and tactics
- To be tactically astute in understanding how to bat or bowl in order to win a game.
- To work with a partner to get the best possible outcome in pairs cricket
- To be actively involved in small sided games in cricket

Prime endpoints – P.E. Year 6	Protocols for quality assurance
Uses a range of techniques and develops consistency in athletic disciplines.	
Creates sequences imaginatively and fluently in gymnastics.	
Plans and performs set dances and patterns accurately in dance.	
Demonstrates a range of skills with precision and control – invasive games.	
Evaluates their own and others' work and suggests way to improve.	



By the end of Reception, pupils will know and be able to:

- using songs, make music and dance, and experiment with ways of changing them
- use what they have learnt about media and materials in original ways, thinking about uses and purposes
- represent their own ideas, thoughts and feelings through music.

By the end of year 1 pupils will know and be able to:

OURSELVES - EXPLORING SOUNDS - Autumn

- create and respond to vocal sounds
- explore how to change sounds
- create and place vocal and body percussion sounds

NUMBER – BEAT - Autumn

- recognise and develop a sense of steady beat using voices and body percussion
- identify and perform changes in tempo
- learn to play percussion with control
- **identify and keep a steady beat using movement, body percussion and instruments**
- recognise and respond to changes in the tempo in music

ANIMALS – PITCH - Spring

- relating to pitch to high and low body posture
- understand pitch by singing and song with contrasting high and low melodies
- identify and play high and low pitches in music
- explore and develop an understanding of pitch using the voice and body movements
- recognise and perform pitch changes and contrasts

WEATHER - EXPLORING SOUNDS - Spring

- explore and control dynamics (volume), duration and timbre with voices, body percussions and instruments
- improvise descriptive music
- control duration and dynamics using voices, body percussion instrument identify a sequence of sounds (structure) in a piece of music
- **identify sequence of sounds (structure) in a piece of music**
- respond to music to movement

MACHINES- BEAT

play a steady beat

control changes in speed (tempo)

SEASONS – PITCH - Summer

- identify changes in pitch and respond to them with movement
- contrast changes in pitch with changes in dynamics (volume)
- **relate pitch changes to graphic symbols and perform pitch changes vocally**
- listen and respond to a falling pitch signal
- distinguish between pitched and un-pitched percussion sounds

OUR SCHOOL - EXPLORING SOUNDS

explore different sound sources and material

analyse the dynamics and duration of the sounds around the school  
 explore these elements/dimensions on instruments  
 create two contrasting textures  
 interpret sounds and explore instruments  
 create a soundscape as part of a song performance.

#### PATTERN – BEAT - Summer

- make a steady beat with voices in the body percussion
- perform a steady beat in patterns of 2,3 and 4 beats (metre)
- explore different ways to empathise the first beat in a repeating pattern or metre
- identify metre by reorganising it's pattern
- divide the number 12 in the 2s, 3s and 4s
- **explore different ways to emphasise beats to form a group (metre)**
- explore sounds and instruments and find different ways to vary their sound

#### STORY TIME - EXPLORING SOUNDS

discuss basic musical terms – fast, slow, loud, quiet  
 understand how music can tell a story  
 perform with concentration  
 play fast, slow, loud and quiet  
 create music that matches an event in a story

#### OUR BODIES – BEAT - Summer

- perform a steady beat at 2 different speeds (tempi)
- **respond to change the mood in a piece of music with a slow and fast to the beat**
- identify repeated rhythm pattern
- combine a rhythm pattern nice steady beat
- perform rhythm patterns on body percussion to a steady beat

#### TRAVEL - PERFORMANCE

combine voices, movement and instruments to perform a chant and a song  
 keep a steady beat on instruments  
 create word rhythms  
 perform word rhythms with movement  
 play and combine simple word rhythms  
 respond to music and movement

#### WATER – PITCH - Summer

- understand musical structure by listening and responding
- **perform a simple repeated pattern.**

Prime endpoints – Music Year 1	Protocols for quality assurance
Creates and chooses sounds using a range of instruments.	
Follows the shape of the melody when singing.	
Identifies musical pulse and follows musical instructions.	
Responds to different moods in music and recognises changes in sounds.	
<b>Can repeat short rhythmic and melodic patterns.</b>	



By the end of year 2 pupils will know and be able to:

#### OURSELVES - EXPLORING SOUNDS

- create and respond to vocal sounds and vocal percussion
- develop the use of vocal sounds to express feeling
- explore expression in a conversation without words
- notate pitch shape and duration using simple line graphics
- understand how mood can be expressed using the voice
- understand the structure of 'call and response' songs
- develop an expressive song performance with voice and instruments

#### TOYS - BEAT

- keep a steady beat at different speeds (tempi)
- make beats within a 4-beat meter
- develop a sense of a steady beat through chants, actions and instruments
- make beats within a 4-beat metre
- change the tempo

#### OUR LAND - EXPLORING SOUNDS

- explore timbre and texture to understand how sounds can be descriptive
- creating and perform descriptive instrumental music inspired by British myths and legends
- listen to and identify contrasting sections of descriptive music
- match descriptive sounds to images
- identify ways of producing sounds
- listen to and evaluate composition
- rehearse and refine to develop a performance.

#### OUR BODIES - BEAT

- recognise and respond to a rhythm ostinato pattern
- recognise and play rhythmic patterns
- recognise and respond to steady beats and different tempi
- play steady beat at different tempi on body percussion and instruments

#### ANIMALS - PITCH

- listen to a steady beat than responding movement
- identify and respond to changes in pitch, upwards and downwards
- perform changes in pitch using whole body movement and voice understanding perform upwards and downwards pitch direction
- read pitch line notation
- play pitch lines on a tuned Prakashan
- combine pitch change with changes in other elements/dimensions.

#### NUMBER - BEAT

- perform a steady beat and simple rhythms using movement and body percussion
- perform simple rhythms using movement and percussion
- understand and differentiate between beat and rhythm
- perform a steady beat and simple rhythms using movement and body percussion
- understand and differentiate between the beat and rhythm.

#### STORY TIME - EXPLORING SOUNDS

- combine sounds to create a musical affect
- understand how music, dance and drama and combining storytelling
- explore voices to create descriptive musical effects
- create and mash descriptive sounds made with the boys
- combine sounds to create a musical affect

- perform turn audience.

#### SEASONS – PITCH

- sing with expression, paying attention to the pitch shape of the melody
- use sign language in a song
- accompany a song with vocal and instrumental astinati
- identify rising and falling pitch
- perform rising pitch sequence in a song
- listen respond to pitch changes with movements
- sing with expression and paying attention to pitch shape of the melody

#### WEATHER/EXPLORING SOUNDS

- perform a rhythmic chant and play an independent rhythm pattern to accompany it
- listen in detail to piece of orchestral music
- perform an updated version of a traditional rhyme with a rap section included
- accompany a song with three different repeated word patterns
- compose music to illustrate a story

#### PATTERN – BEAT

- perform steady beat patterns with the song
- play different patterns of steady beat within four beats, matching to a simple score
- perform and create simple rhythms using a simple score
- perform steady patterns in groups to accompany a song
- play different patterns of steady beat in groups and match them to a simple score
- perform and create simple three beat rhythms using a simple score
- interpret a score to perform different beat patterns.
- perform beat patterns with voices and percussion
- explore different ways to organise music

#### WATER - PITCH

- understand pitch through singing, movement and note names
- perform a melody
- understand melody through songs, movement and perform pitch shapes on a tuned instrument
- explore and develop an understanding of pitch
- use musical scales, high notes and low notes in a composition

#### TRAVEL – PERFORMANCE

- explore patterns of musical movement in a game song
- respond to a song with movement
- use simple musical vocabulary to describe music
- combine a steady beat and the reasons to accompany a song
- listen and respond to contemporary orchestral music
- play an instrument game to practice steady beat at changing tempi
- prepare and improve a performance using movement, voice and percussion
- use instruments expressively
- understand notation.

Prime endpoints – Music Year 2	Protocols for quality assurance
Listens to different types of music, and comments appropriately.	
Effectively uses voice and instruments for musical compositions.	
Recognises the effect of pitch, beat and different sounds.	
Performs simple patterns and accompaniments, keeping to a steady pulse.	

By the end of year 3 pupils will know and be able to:

#### ENVIRONMENT – COMPOSITION

- select descriptive sounds to accompany a poem
- create a musical retelling of a poem
- sing in a two-part harmony
- accompany a song with a melodic ostinato
- explore timbre to create a descriptive piece of music
- learn about ternary form
- sing a song with expression
- develop the lyrics of a song
- choose timbre to make an accompaniment
- combine chants and sound pictures in a class performance in a rando structure

#### BUILDING – BEAT

- understand how music can be organised in sequences
- use voices and actions to perform simple rhythms within a steady beat
- understand how music can be organised in layers
- combine rhythms in layers
- create music using the children's own ideas
- make choices about musical structure

#### SOUNDS – EXPLORING SOUNDS

- learn how sounds are produced and instruments are classified
- learn about aerophones
- understand musical convention structure
- learn about idiophones
- develop an understanding of call and response
- learn about chordophones.

#### POETRY – PERFORMANCE

- enhance and extend the performance of the poem using vocal patterns
- create a piece of playground music out of layered vocal patterns as part of a performance piece
- explore contrasting moods and effects as part of a performance
- combine two rhythmic patterns using body percussion and percussion instruments as part of a performance piece.

#### CHINA – PITCH

- understand the pentatonic scale
- understand pitch through composing, notating and reading graphic notation
- perform a pentatonic song with tuned and untuned accompaniments
- play in steps using graphic notation

#### TIME – BEAT

- identify the metre in a piece of music
- play independent parts in more than one metre simultaneously
- identify and perform an ostinato
- improvise an ostinato accompaniment
- perform a rhythmic ostinati individually and in combination
- ayer rhythms. Recognise rhythm patterns in staff notation.

#### IN THE PAST – PITCH

- understand pitch
- learn to read simple pitch notation
- understand and use pitch notations

- read simple rhythmic notation
- learn a Tudor dance.

#### COMMUNICATION – COMPOSITION

- represent sounds with symbols
- use voices creatively and expressively
- create and perform from a symbol score

#### HUMAN BODY – STRUCTURE

- understand call and response structure
- perform word rhythms
- explore sounds
- sing in 2 parts
- perform a call and response structure
- understand and perform binary form

#### SINGING FRENCH – PITCH

- understand pitch through melody
- develop a song
- understand pitch through singing and playing the melody
- recognise pitch shapes
- read notations to play a melody

#### ANCIENT WORLDS - STRUCTURE

- explore tuned and untuned percussion to create soothing, repetitive music based on ostinato
- sing a song then and accompany it with tuned percussion ostinato.
- explore musical phases, melodic imitation and rounds
- perform a round in three parts
- arrange an accompaniment with attention to balance and musical affect.

#### FOOD AND DRINK – PERFORMANCE

- explore simple accompaniments using beat and rhythm patterns
- use a score and combine sounds to create different musical textures
- explore different types of accompaniment

Prime endpoints – Music Year 3	Protocols for quality assurance
Works co-operatively with others to compose pieces within a small group.	
Performs simple parts with an awareness of others.	
Improvises repeated patterns.	
Makes improvements to own work.	
Performs to others with confidence.	

By the end of year 4 pupils will know and be able to:

- know the history of the D’Jembe; where it originates from and how it is made
- understand how drumming is a huge part of the everyday community life in West Africa
- have fun and build confidence
- build strength, stamina and listening skills:
- perform pulse and rhythm
- perform all the west African rhythms taught

Prime endpoints – Music Year 4	Protocols for quality assurance
Makes adjustments to fit own part within a group performance.	
Plays a simple rhythm.	
Plays in a controlled manner.	
Sings with confidence and enjoyment.	

By the end of year 5 pupils will know and be able to:

- understand how we start a song (by counting in) and also understand that the speed of the counting informs the speed of the strumming
- to strum in time, on the beat, know most of the following chords from memory and have started to change from one chord to another.
  - 0 fingers - Am7
  - 1 finger - C, C7, Am
  - 2 finger - F, D7, Em7
- read chord diagrams and at least work out where their fingers should be for any given chord even if coordinating their fingers is not yet possible.
  
- perform a more complex strumming pattern than simply down strums on the beat
- extend the chords they know from memory to more complex 3 finger chords and changes between chord become more and more fluid.
  - 3 fingers - G, G7, E7, Em
- understand how tablature notation functions.
  
- able to play ukulele and sing at the same time.
- produce a short composition of their own.
- perform barre chords (covering all four strings)

Prime endpoints – Music Year 5	Protocols for quality assurance
Has a well-developed sense of pulse and rhythm.	
Plays some of the chords on the ukulele.	
Can transition between chords on the ukulele.	

By the end of year 6 pupils will know and be able to:

#### Composing Music

- compose and notate a piece of music
- play and perform in solo and ensemble contexts, using their voices with increasing accuracy, fluency, control and expression
- improvise and compose music for a range of purposes using the inter-related dimensions of music
- listen with attention to detail and recall sounds with increasing aural memory
- use and understand staff and other musical notations

#### History of Music

- Appreciate and understand a wide range of high quality live and recorded music drawn from different traditions and from great composers and musicians
- Develop an understanding of the history of music

Prime endpoints – Music Year 6	Protocols for quality assurance
Composes by developing ideas within musical structures.	
Performs important parts from memory or notations.	
Leads others, take a solo part, and/or provide rhythmic support.	