



National Curriculum Objectives & Skills Development

Subject:	English
KS2 National Curriculum objectives:	<p>Spoken Language: Pupils should be taught to:</p> <ul style="list-style-type: none"> ▪ listen and respond appropriately to adults and their peers ▪ ask relevant questions to extend their understanding and knowledge ▪ use relevant strategies to build their vocabulary ▪ articulate and justify answers, arguments and opinions ▪ give well-structured descriptions, explanations and narratives for different purposes, including for expressing feelings ▪ maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments ▪ use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas ▪ speak audibly and fluently with an increasing command of Standard English ▪ participate in discussions, presentations, performances, role play, improvisations and debates ▪ gain, maintain and monitor the interest of the listener(s) ▪ consider and evaluate different viewpoints, attending to and building on the contributions of others ▪ select and use appropriate registers for effective communication.
Y3/4 National Curriculum Objectives:	<p><u>Reading – Word Reading:</u></p> <ul style="list-style-type: none"> ▪ apply their growing knowledge of root words, prefixes and suffixes (etymology and morphology) as listed in English Appendix 1, both to read aloud and to understand the meaning of new words they meet ▪ read further exception words, noting the unusual correspondences between spelling and sound, and where these occur in the word.

Reading – Comprehension:

- develop positive attitudes to reading and understanding of what they read by:
 - listening to and discussing a wide range of fiction, poetry, plays, non-fiction and reference books or textbooks
 - reading books that are structured in different ways and reading for a range of purposes
 - using dictionaries to check the meaning of words that they have read
 - increasing their familiarity with a wide range of books, including fairy stories, myths and legends, and retelling some of these orally
 - identifying themes and conventions in a wide range of books
 - preparing poems and play scripts to read aloud and to perform, showing understanding through intonation, tone, volume and action
 - discussing words and phrases that capture the reader's interest and imagination
 - recognising some different forms of poetry [for example, free verse, narrative poetry]
- understand what they read, in books they can read independently, by:
 - checking that the text makes sense to them, discussing their understanding and explaining the meaning of words in context
 - asking questions to improve their understanding of a text
 - drawing inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence
 - predicting what might happen from details stated and implied
 - identifying main ideas drawn from more than one paragraph and summarising these
 - identifying how language, structure, and presentation contribute to meaning
- retrieve and record information from non-fiction
- participate in discussion about both books that are read to them and those they can read for themselves, taking turns and listening to what others say.

Writing – Transcription:

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

Writing – Handwriting:

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

Writing – Composition:

- plan their writing by:
 - discussing writing similar to that which they are planning to write in order to understand and learn from its structure, vocabulary and grammar
 - discussing and recording ideas
- draft and write by:
 - composing and rehearsing sentences orally (including dialogue), progressively building a varied and rich vocabulary and an increasing range of sentence structures ([English Appendix 2](#))
 - organising paragraphs around a theme
 - in narratives, creating settings, characters and plot

- in non-narrative material, using simple organisational devices [for example, headings and sub-headings]
- evaluate and edit by:
 - assessing the effectiveness of their own and others' writing and suggesting improvements
 - proposing changes to grammar and vocabulary to improve consistency, including the accurate use of pronouns in sentences
- proof-read for spelling and punctuation errors
- read aloud their own writing, to a group or the whole class, using appropriate intonation and controlling the tone and volume so that the meaning is clear.

Writing – Vocabulary, Grammar and Punctuation:

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

Y5/6 National Curriculum Objectives:

Reading – Word Reading:

- apply their growing knowledge of root words, prefixes and suffixes (morphology and etymology), as listed in [English Appendix 1](#), both to read aloud and to understand the meaning of new words that they meet.

Reading – Comprehension:

- maintain positive attitudes to reading and understanding of what they read by:
 - continuing to read and discuss an increasingly wide range of fiction, poetry, plays, non-fiction and reference books or textbooks
 - reading books that are structured in different ways and reading for a range of purposes
 - increasing their familiarity with a wide range of books, including myths, legends and traditional stories, modern fiction, fiction from our literary heritage, and books from other cultures and traditions
 - recommending books that they have read to their peers, giving reasons for their choices
 - identifying and discussing themes and conventions in and across a wide range of writing
 - making comparisons within and across books
 - learning a wider range of poetry by heart
 - preparing poems and plays to read aloud and to perform, showing understanding through intonation, tone and volume so that the meaning is clear to an audience
- understand what they read by:
 - checking that the book makes sense to them, discussing their understanding and exploring the meaning of words in context
 - asking questions to improve their understanding
 - drawing inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence
 - predicting what might happen from details stated and implied
 - summarising the main ideas drawn from more than one paragraph, identifying key details that support the main ideas

- identifying how language, structure and presentation contribute to meaning
- discuss and evaluate how authors use language, including figurative language, considering the impact on the reader
- distinguish between statements of fact and opinion
- retrieve, record and present information from non-fiction
- participate in discussions about books that are read to them and those they can read for themselves, building on their own and others' ideas and challenging views courteously
- explain and discuss their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary
- provide reasoned justifications for their views.

Writing – transcription:

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

Writing – Handwriting & Presentation:

- write legibly, fluently and with increasing speed by:
 - choosing which shape of a letter to use when given choices and deciding whether or not to join specific letters

- choosing the writing implement that is best suited for a task.

Writing – composition:

- plan their writing by:
 - identifying the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own
 - noting and developing initial ideas, drawing on reading and research where necessary
 - in writing narratives, considering how authors have developed characters and settings in what pupils have read, listened to or seen performed
- draft and write by:
 - selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning
 - in narratives, describing settings, characters and atmosphere and integrating dialogue to convey character and advance the action
 - précising longer passages
 - using a wide range of devices to build cohesion within and across paragraphs
 - using further organisational and presentational devices to structure text and to guide the reader [for example, headings, bullet points, underlining]
- evaluate and edit by:
 - assessing the effectiveness of their own and others' writing
 - proposing changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning
 - ensuring the consistent and correct use of tense throughout a piece of writing
 - ensuring correct subject and verb agreement when using singular and plural, distinguishing between the language of speech and writing and choosing the appropriate register
 - proof-read for spelling and punctuation errors

Writing – vocabulary, punctuation & grammar:

- develop their understanding of the concepts set out in [English Appendix 2](#) by:

	<ul style="list-style-type: none">▪ recognising vocabulary and structures that are appropriate for formal speech and writing, including subjunctive forms▪ using passive verbs to affect the presentation of information in a sentence▪ using the perfect form of verbs to mark relationships of time and cause▪ using expanded noun phrases to convey complicated information concisely▪ using modal verbs or adverbs to indicate degrees of possibility▪ using relative clauses beginning with who, which, where, when, whose, that or with an implied (i.e. omitted) relative pronoun▪ learning the grammar for years 5 and 6 in English Appendix 2▪ indicate grammatical and other features by:<ul style="list-style-type: none">▪ using commas to clarify meaning or avoid ambiguity in writing▪ using hyphens to avoid ambiguity▪ using brackets, dashes or commas to indicate parenthesis▪ using semi-colons, colons or dashes to mark boundaries between independent clauses▪ using a colon to introduce a list▪ punctuating bullet points consistently and appropriately in discussing their writing and reading.
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Subject:	Maths
<p>KS2 National Curriculum objectives:</p> <p>YEAR 3:</p>	<p><u>Number: Place Value</u></p> <ul style="list-style-type: none"> ▪ count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number ▪ recognise the place value of each digit in a three-digit number (hundreds, tens, ones) ▪ compare and order numbers up to 1000 ▪ identify, represent and estimate numbers using different representations ▪ read and write numbers up to 1000 in numerals and in words ▪ solve number problems and practical problems involving these ideas. <p><u>Number: Addition & Subtraction</u></p> <ul style="list-style-type: none"> ▪ add and subtract numbers mentally, including: <ul style="list-style-type: none"> ▪ a three-digit number and ones ▪ a three-digit number and tens ▪ a three-digit number and hundreds ▪ add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction ▪ estimate the answer to a calculation and use inverse operations to check answers ▪ solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. <p><u>Number: Multiplication & Division</u></p> <ul style="list-style-type: none"> ▪ recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables ▪ write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods

- solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.

Fractions:

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

Measurement:

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

	<ul style="list-style-type: none"> ▪ know the number of seconds in a minute and the number of days in each month, year and leap year ▪ compare durations of events [for example to calculate the time taken by particular events or tasks]. <p><u>Geometry:</u></p> <ul style="list-style-type: none"> ▪ draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them ▪ recognise angles as a property of shape or a description of a turn ▪ identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle ▪ identify horizontal and vertical lines and pairs of perpendicular and parallel lines. <p><u>Statistics:</u></p> <ul style="list-style-type: none"> ▪ interpret and present data using bar charts, pictograms and tables ▪ solve one-step and two-step questions [for example, ‘How many more?’ and ‘How many fewer?’] using information presented in scaled bar charts and pictograms and tables.
<p>YEAR 4:</p>	<p><u>Number: Place Value</u></p> <ul style="list-style-type: none"> ▪ count in multiples of 6, 7, 9, 25 and 1000 ▪ find 1000 more or less than a given number ▪ count backwards through zero to include negative numbers ▪ recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) ▪ order and compare numbers beyond 1000 ▪ identify, represent and estimate numbers using different representations ▪ round any number to the nearest 10, 100 or 1000

- solve number and practical problems that involve all of the above and with increasingly large positive numbers
- read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.

Number: Addition & Subtraction

- count in multiples of 6, 7, 9, 25 and 1000
- find 1000 more or less than a given number
- count backwards through zero to include negative numbers
- recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
- order and compare numbers beyond 1000
- identify, represent and estimate numbers using different representations
- round any number to the nearest 10, 100 or 1000
- solve number and practical problems that involve all of the above and with increasingly large positive numbers
- read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.

Number: Multiplication & Division

- recall multiplication and division facts for multiplication tables up to 12×12
- use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers
- recognise and use factor pairs and commutativity in mental calculations
- multiply two-digit and three-digit numbers by a one-digit number using formal written layout

- solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.

Fractions (including decimals):

- recognise and show, using diagrams, families of common equivalent fractions
- count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.
- solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number
- add and subtract fractions with the same denominator
- recognise and write decimal equivalents of any number of tenths or hundredths
- recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$
- find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths
- round decimals with one decimal place to the nearest whole number
- compare numbers with the same number of decimal places up to two decimal places
- solve simple measure and money problems involving fractions and decimals to two decimal places.

Measurement:

- Convert between different units of measure [for example, kilometre to metre; hour to minute]
- measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
- find the area of rectilinear shapes by counting squares
- estimate, compare and calculate different measures, including money in pounds and pence
- read, write and convert time between analogue and digital 12- and 24-hour clocks

	<ul style="list-style-type: none"> ▪ solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. <p><u>Geometry:</u></p> <ul style="list-style-type: none"> ▪ compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes ▪ identify acute and obtuse angles and compare and order angles up to two right angles by size ▪ identify lines of symmetry in 2-D shapes presented in different orientations ▪ complete a simple symmetric figure with respect to a specific line of symmetry. ▪ describe positions on a 2-D grid as coordinates in the first quadrant ▪ describe movements between positions as translations of a given unit to the left/right and up/down ▪ plot specified points and draw sides to complete a given polygon. <p><u>Statistics:</u></p> <ul style="list-style-type: none"> ▪ interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. ▪ solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.
YEAR 5:	<p><u>Number: Place Value</u></p> <ul style="list-style-type: none"> ▪ read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit ▪ count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 ▪ interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero ▪ round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 ▪ solve number problems and practical problems that involve all of the above

- read Roman numerals to 1000 (M) and recognise years written in Roman numerals.

Number: Addition & Subtraction

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

Number: Multiplication & Division

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

- solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
- solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.

Fraction (including decimals & percentages):

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

Measurement:

- convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)
- understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints
- measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
- calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes
- estimate volume [for example, using 1 cm³ blocks to build cuboids (including cubes)] and capacity [for example, using water]
- solve problems involving converting between units of time
- use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.

Geometry:

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

	<ul style="list-style-type: none"> ▪ 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. <p><u>Statistics:</u></p> <ul style="list-style-type: none"> ▪ solve comparison, sum and difference problems using information presented in a line graph ▪ complete, read and interpret information in tables, including timetables.
YEAR 6:	<p><u>Number: Place Value</u></p> <ul style="list-style-type: none"> ▪ read, write, order and compare numbers up to 10 000 000 and determine the value of each digit ▪ round any whole number to a required degree of accuracy ▪ use negative numbers in context, and calculate intervals across zero ▪ solve number and practical problems that involve all of the above. <p><u>Number: Addition, Subtraction, Multiplication & Division:</u></p> <ul style="list-style-type: none"> ▪ multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication ▪ divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context ▪ divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context ▪ perform mental calculations, including with mixed operations and large numbers ▪ identify common factors, common multiples and prime numbers ▪ use their knowledge of the order of operations to carry out calculations involving the four operations ▪ solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

- solve problems involving addition, subtraction, multiplication and division
- use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.

Fractions (including decimals & percentages):

- use common factors to simplify fractions; use common multiples to express fractions in the same denomination
- compare and order fractions, including fractions > 1
- add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
- multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$]
- divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$]
- associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$]
- identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places
- multiply one-digit numbers with up to two decimal places by whole numbers
- use written division methods in cases where the answer has up to two decimal places
- solve problems which require answers to be rounded to specified degrees of accuracy
- recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.

Ration & Proportion:

- solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts

- solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
- solve problems involving similar shapes where the scale factor is known or can be found
- solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.

Algebra:

- use simple formulae
- generate and describe linear number sequences
- express missing number problems algebraically
- find pairs of numbers that satisfy an equation with two unknowns
- enumerate possibilities of combinations of two variables.

Measurement:

- solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
- use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places
- convert between miles and kilometres
- recognise that shapes with the same areas can have different perimeters and vice versa
- recognise when it is possible to use formulae for area and volume of shapes
- calculate the area of parallelograms and triangles
- calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3].

Geometry:

- draw 2-D shapes using given dimensions and angles
- recognise, describe and build simple 3-D shapes, including making nets
- compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
- illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
- recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.
- describe positions on the full coordinate grid (all four quadrants)
- draw and translate simple shapes on the coordinate plane, and reflect them in the axes.

Statistics:

- interpret and construct pie charts and line graphs and use these to solve problems
- calculate and interpret the mean as an average.

Subject:	Science
<p>National Curriculum KS2 objectives:</p> <p>YEAR 3/4</p>	<p><u>Working Scientifically:</u></p> <ul style="list-style-type: none"> ▪ 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 a 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. <p><u>Rocks:</u></p> <ul style="list-style-type: none"> ▪ 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. <p><u>Plants:</u></p> <ul style="list-style-type: none"> ▪ 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.

Animals including humans:

- 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.
- 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.

Light:

- 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 an opaque object
- find patterns in the way that the size of shadows change.

Forces & Magnets:

- 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.

Living things & their habitats:

- 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.

States of matter:

- 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.

Sound:

- identify how sounds are made, associating some of them with something vibrating
- recognise that vibrations from sounds travel through a medium to the ear
- find patterns between the pitch of a sound and features of the object that produced it
- find patterns between the volume of a sound and the strength of the vibrations that produced it
- recognise that sounds get fainter as the distance from the sound source increases.

Electricity:

	<ul style="list-style-type: none"> ▪ identify common appliances that run on electricity ▪ construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers ▪ identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery ▪ recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit ▪ recognise some common conductors and insulators, and associate metals with being good conductors.
<p>National Curriculum KS2 objectives:</p> <p>YEAR 5/6</p>	<p><u>Working Scientifically:</u></p> <ul style="list-style-type: none"> ▪ 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 when appropriate ▪ 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. <p><u>Living things & their habitats:</u></p> <ul style="list-style-type: none"> ▪ 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 and animals.

- 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.

Animals including humans:

- 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.

Properties & changes of materials:

- compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and 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.

Earth & Space:

- 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.

Forces:

- 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.

Evolution & Inheritance:

- 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.

Light:

- 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

	<ul style="list-style-type: none"> ▪ use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. <p><u>Electricity:</u></p> <ul style="list-style-type: none"> ▪ 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.
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Development:		Milestone 1 (Y1/2)	Milestone 2 (Y3/4)	Milestone 3 (Y5/6)
	To work scientifically	<ul style="list-style-type: none"> • Ask simple questions. • 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. 	<ul style="list-style-type: none"> • Ask relevant questions. • Set up simple, practical enquiries and comparative and fair tests. • Make accurate measurements using standard units, using a range of equipment, e.g. thermometers and data loggers. • Gather, record, classify and present data in a variety of ways to help in answering questions. • Record findings using simple scientific language, drawings, 	<ul style="list-style-type: none"> • Plan enquiries, including recognising and controlling variables where necessary. • Use appropriate techniques, apparatus, and materials during fieldwork and laboratory work. • Take measurements, using a range of scientific equipment, with increasing accuracy and precision. • Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar and line graphs, and models. • Report findings from enquiries, including oral and written explanations of results, explanations

			<p>labelled diagrams, bar charts and tables.</p> <ul style="list-style-type: none"> • Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. • Use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests. • Identify differences, similarities or changes related to simple, scientific ideas and processes. • Use straightforward, scientific evidence to answer questions or to support their findings. 	<p>involving causal relationships, and conclusions.</p> <ul style="list-style-type: none"> • Present findings in written form, displays and other presentations. • Use test results to make predictions to set up further comparative and fair tests. • Use simple models to describe scientific ideas, identifying scientific evidence that has been used to support or refute ideas or arguments.
Biology	To understand plants	<ul style="list-style-type: none"> • Identify and name a variety of common plants, including garden plants, wild plants and trees and those classified as deciduous and evergreen. • Identify and describe the basic structure of a variety of common flowering plants, including roots, stem/trunk, leaves and flowers. 	<ul style="list-style-type: none"> • Identify and describe the functions of different parts of flowering plants: roots, stem, 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. 	<ul style="list-style-type: none"> • <i>Relate knowledge of plants to studies of evolution and inheritance.</i> • <i>Relate knowledge of plants to studies of all living things.</i>

		<ul style="list-style-type: none"> • Observe and describe how seeds and bulbs grow into mature plants. • Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. 	<ul style="list-style-type: none"> • Investigate the way in which water is transported within plants. • Explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 	
To understand animals and humans		<ul style="list-style-type: none"> • Identify and name a variety of common animals that are birds, fish, amphibians, reptiles, mammals and invertebrates. • Identify and name a variety of common animals that are carnivores, herbivores and omnivores. • Describe and compare the structure of a variety of common animals (birds, fish, amphibians, reptiles, mammals and invertebrates, including pets). • Identify name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. • Notice that animals, including humans, have 	<ul style="list-style-type: none"> • Identify that animals, including humans, need the right types and amounts of nutrition, that they cannot make their own food and they get nutrition from what they eat. • Construct and interpret a variety of food chains, identifying producers, predators and prey. • Identify that humans and some animals have skeletons and muscles for support, protection and movement. • Describe the simple functions of the basic parts of the digestive system in humans. • Identify the different types of teeth in humans and their simple functions. 	<ul style="list-style-type: none"> • 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 importance of diet, exercise, drugs and lifestyle on the way the human body functions. • Describe the ways in which nutrients and water are transported within animals, including humans.

		<p>offspring which grow into adults.</p> <ul style="list-style-type: none"> • Investigate and describe the basic needs of animals, including humans, for survival (water, food and air). • Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene. 		
To investigate living things	<ul style="list-style-type: none"> • Explore and compare the differences between things that are living, that are dead and that have never been alive. • Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants and how they depend on each other. • Identify and name a variety of plants and animals in their habitats, including micro-habitats. • Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, 	<ul style="list-style-type: none"> • Recognise that living things can be grouped in a variety of ways. • Explore and use classification keys. • Recognise that environments can change and that this can sometimes pose dangers to specific habitats. 	<ul style="list-style-type: none"> • 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 and animals. • Describe how living things are classified into broad groups according to common observable characteristics. • Give reasons for classifying plants and animals based on specific characteristics. 	

		and identify and name different sources of food.		
	To understand evolution and inheritance	<ul style="list-style-type: none"> • <i>Identify how humans resemble their parents in many features.</i> 	<ul style="list-style-type: none"> • <i>Identify how plants and animals, including humans, resemble their parents in many features.</i> • <i>Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</i> • <i>Identify how animals and plants are suited to and adapt to their environment in different ways.</i> 	<ul style="list-style-type: none"> • Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. • 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.
Chemistry	To investigate materials	<ul style="list-style-type: none"> • Distinguish between an object and the material from which it is made. • Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock. • Describe the simple physical properties of a variety of everyday materials. • Compare and group together a variety of everyday 	<p>Rocks and Soils</p> <ul style="list-style-type: none"> • Compare and group together different kinds of rocks on the basis of their simple, physical properties. • Relate the simple physical properties of some rocks to their formation (igneous or sedimentary). • Describe in simple terms how fossils are formed when things 	<ul style="list-style-type: none"> • Compare and group together everyday materials based on evidence from comparative and fair tests, including their hardness, solubility, conductivity (electrical and thermal), and response to magnets. • Understand how 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

		<p>materials on the basis of their simple physical properties.</p> <ul style="list-style-type: none"> • Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. • Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick/rock, and paper/cardboard for particular uses. 	<p>that have lived are trapped within sedimentary rock.</p> <ul style="list-style-type: none"> • Recognise that soils are made from rocks and organic matter. <p>States of Matter</p> <ul style="list-style-type: none"> • Compare and group materials together, according to whether they are solids, liquids or gases. • Observe that some materials change state when they are heated or cooled, and measure the temperature at which this happens in degrees Celsius (°C), building on their teaching in mathematics. • Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. 	<p>might be separated, including through filtering, sieving and evaporating.</p> <ul style="list-style-type: none"> • Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. • Demonstrate that dissolving, mixing and changes of state are reversible changes. • Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning, oxidation and the action of acid on bicarbonate of soda.
Physics	To understand movement, forces and magnets	<ul style="list-style-type: none"> • <i>Notice and describe how things move, using simple comparisons such as faster and slower.</i> • <i>Compare how different things move.</i> 	<ul style="list-style-type: none"> • Compare how things move on different surfaces. • Notice that some forces need contact between two objects, but magnetic forces can act at a distance. 	<p>Magnets</p> <ul style="list-style-type: none"> • Describe magnets as having two poles. • Predict whether two magnets will attract or repel each

			<ul style="list-style-type: none"> • 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. 	<p>other, depending on which poles are facing.</p> <p>Forces</p> <ul style="list-style-type: none"> • Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. • Identify the effect of drag forces, such as air resistance, water resistance and friction that act between moving surfaces. • <i>Describe, in terms of drag forces, why moving objects that are not driven tend to slow down.</i> • <i>Understand that force and motion can be transferred through mechanical devices such as gears, pulleys, levers and springs.</i> • Understand that some mechanisms including levers, pulleys and gears, allow a smaller force to have a greater effect.
To understand light and seeing		<ul style="list-style-type: none"> • <i>Observe and name a variety of sources of light, including electric lights, flames and the Sun, explaining that we see things because light travels from them to our eyes.</i> 	<ul style="list-style-type: none"> • Recognise that they need light in order to see things and that dark is the absence of light. 	<ul style="list-style-type: none"> • Understand that light appears to travel in straight lines. • Use the idea that light travels in straight lines to explain that objects

		<ul style="list-style-type: none"> • 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. 	<p>are seen because they give out or reflect light into the eyes.</p> <ul style="list-style-type: none"> • Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them, and to predict the size of shadows when the position of the light source changes. • 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.
To investigate sound and hearing	<ul style="list-style-type: none"> • <i>Observe and name a variety of sources of sound, noticing that we hear with our ears.</i> 	<ul style="list-style-type: none"> • Identify how sounds are made, associating some of them with something vibrating. • Recognise that vibrations from sounds travel through a medium to the ear. 	<ul style="list-style-type: none"> • 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.
To understand electrical circuits	<ul style="list-style-type: none"> • <i>Identify common appliances that run on electricity.</i> • <i>Construct a simple series electrical circuit.</i> 	<ul style="list-style-type: none"> • Identify common appliances that run on electricity. • Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. 	<ul style="list-style-type: none"> • 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

			<ul style="list-style-type: none"> • 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. 	<p>of buzzers and the on/off position of switches.</p> <ul style="list-style-type: none"> • Use recognised symbols when representing a simple circuit in a diagram.
To understand the Earth's movement in space	<ul style="list-style-type: none"> • <i>Observe the apparent movement of the Sun during the day.</i> • Observe changes across the four seasons. • Observe and describe weather associated with the seasons and how day length varies. 	<ul style="list-style-type: none"> • <i>Describe the movement of the Earth relative to the Sun in the solar system.</i> • <i>Describe the movement of the Moon relative to the Earth.</i> 	<ul style="list-style-type: none"> • 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. 	
Note:	Items in italics are not statutory in the English National Curriculum.			

Subject:	Computing
National Curriculum KS2 objectives:	<ul style="list-style-type: none"> • Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • Use sequence, selections and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs. • Use logical reasoning to explain how a simple algorithm works, detect and correct errors in algorithms and programs. • Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. • Describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely. • Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Development:		Milestone 1 (Y1/2)	Milestone 2 (Y3/4)	Milestone 3 (Y5/6)
To code	Motion	<ul style="list-style-type: none"> • Control motion by specifying the number of steps to travel, direction and turn. 	<ul style="list-style-type: none"> • Use specified screen coordinates to control movement. 	<ul style="list-style-type: none"> • Set IF conditions for movements. Specify types of rotation giving the number of degrees.
	Looks	<ul style="list-style-type: none"> • Add text strings, show and hide objects and change the features of an object. 	<ul style="list-style-type: none"> • Set the appearance of objects and create sequences of changes. 	<ul style="list-style-type: none"> • Change the position of objects between screen layers (send to back, bring to front).
	Sound	<ul style="list-style-type: none"> • Select sounds and control when they 	<ul style="list-style-type: none"> • Create and edit sounds. Control when they are heard, their volume, duration and rests. 	<ul style="list-style-type: none"> • Upload sounds from a file and edit them. Add effects such as fade in and out and control their implementation.

		are heard, their duration and volume.		
Draw	<ul style="list-style-type: none"> Control when drawings appear and set the pen colour, size and shape. 	<ul style="list-style-type: none"> Control the shade of pens. 	<ul style="list-style-type: none"> Combine the use of pens with movement to create interesting effects. 	
Events	<ul style="list-style-type: none"> Specify user inputs (such as clicks) to control events. 	<ul style="list-style-type: none"> Specify conditions to trigger events. 	<ul style="list-style-type: none"> Set events to control other events by 'broadcasting' information as a trigger. 	
Control	<ul style="list-style-type: none"> Specify the nature of events (such as a single event or a loop). 	<ul style="list-style-type: none"> Use IF THEN conditions to control events or objects. 	<ul style="list-style-type: none"> Use IF THEN ELSE conditions to control events or objects. 	
Sensing	<ul style="list-style-type: none"> Create conditions for actions by waiting for a user input (such as responses to questions like: What is your name?). 	<ul style="list-style-type: none"> Create conditions for actions by sensing proximity or by waiting for a user input (such as proximity to a specified colour or a line or responses to questions). 	<ul style="list-style-type: none"> Use a range of sensing tools (including proximity, user inputs, loudness and mouse position) to control events or actions. 	
Variables and lists	<ul style="list-style-type: none"> From Year 3 onwards. 	<ul style="list-style-type: none"> Use variables to store a value. Use the functions define, set, change, show and hide to control the variables. 	<ul style="list-style-type: none"> Use lists to create a set of variables. 	
Operators	<ul style="list-style-type: none"> From Year 3 onwards. 	<ul style="list-style-type: none"> Use the Reporter operators to perform calculations. 	<ul style="list-style-type: none"> Use the Boolean operators to define conditions. Use the Reporter operators to perform calculations. 	
To connect	<ul style="list-style-type: none"> Participate in class social media accounts. 	<ul style="list-style-type: none"> Contribute to blogs that are moderated by teachers. 	<ul style="list-style-type: none"> Collaborate with others online on sites approved and moderated by teachers. 	

		<ul style="list-style-type: none"> • Understand online risks and the age rules for sites. 	<ul style="list-style-type: none"> • Give examples of the risks posed by online communications. • Understand the term 'copyright'. • Understand that comments made online that are hurtful or offensive are the same as bullying. • Understand how online services work. 	<ul style="list-style-type: none"> • Give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems. • Understand and demonstrate knowledge that it is illegal to download copyrighted material, including music or games, without express written permission, from the copyright holder. • Understand the effect of online comments and show responsibility and sensitivity when online. • Understand how simple networks are set up and used.
To communicate		<ul style="list-style-type: none"> • Use a range of applications and devices in order to communicate ideas, work and messages. 	<ul style="list-style-type: none"> • Use some of the advanced features of applications and devices in order to communicate ideas, work or messages professionally. 	<ul style="list-style-type: none"> • Choose the most suitable applications and devices for the purposes of communication. • Use many of the advanced features in order to create high quality, professional or efficient communications.
To collect		<ul style="list-style-type: none"> • Use simple databases to record information in areas across the curriculum. 	<ul style="list-style-type: none"> • Devise and construct databases using applications designed for this purpose in areas across the curriculum. 	<ul style="list-style-type: none"> • Select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner.

Subject:	Physical Education
National Curriculum KS2 objectives:	<ul style="list-style-type: none"> • Play competitive games, modified where appropriate, such as football, netball, rounders, cricket, hockey, basketball, badminton and tennis and apply basic principles suitable for attacking and defending. • Take part in gymnastics activities. • Take part in athletics activities. • Perform dances. • Take part in outdoor and adventurous activity challenges both individually and within a team. • Swimming and water safety: take swimming instruction either in Key Stage 1 or Key Stage 2.

Development:		Milestone 1 (Y1/2)	Milestone 2 (Y3/4)	Milestone 3 (Y5/6)
To develop practical skills in order to participate, compete and lead a healthy lifestyle	Games	<ul style="list-style-type: none"> • Use the terms 'opponent' and 'team-mate'. • Use rolling, hitting, running, jumping, catching and kicking skills in combination. • Develop tactics. • Lead others when appropriate. 	<ul style="list-style-type: none"> • Throw and catch with control and accuracy. • Strike a ball and field with control. • Choose appropriate tactics to cause problems for the opposition. • Follow the rules of the game and play fairly. • Maintain possession of a ball (with, e.g. feet, a hockey stick or hands). • Pass to team mates at appropriate times. • Lead others and act as a respectful team member. 	<ul style="list-style-type: none"> • Choose and combine techniques in game situations (running, throwing, catching, passing, jumping and kicking, etc.). • Work alone, or with team mates in order to gain points or possession. • Strike a bowled or volleyed ball with accuracy. • Use forehand and backhand when playing racket games. • Field, defend and attack tactically by anticipating the direction of play.

				<ul style="list-style-type: none"> • Choose the most appropriate tactics for a game. • Uphold the spirit of fair play and respect in all competitive situations. • Lead others when called upon and act as a good role model within a team.
	Dance	<ul style="list-style-type: none"> • Copy and remember moves and positions. • Move with careful control and coordination. • Link two or more actions to perform a sequence. • Choose movements to communicate a mood, feeling or idea. 	<ul style="list-style-type: none"> • Plan, perform and repeat sequences. • Move in a clear, fluent and expressive manner. • Refine movements into sequences. • Create dances and movements that convey a definite idea. • Change speed and levels within a performance. • Develop physical strength and suppleness by practising moves and stretching. 	<ul style="list-style-type: none"> • Compose creative and imaginative dance sequences. • Perform expressively and hold a precise and strong body posture. • Perform and create complex sequences. • Express an idea in original and imaginative ways. • Plan to perform with high energy, slow grace or other themes and maintain this throughout a piece. • Perform complex moves that combine strength and stamina gained through gymnastics activities (such as cartwheels or handstands).

	Gymnastics	<ul style="list-style-type: none"> • Copy and remember actions. • Move with some control and awareness of space. • Link two or more actions to make a sequence. • Show contrasts (such as small/tall, straight/curved and wide/narrow). • Travel by rolling forwards, backwards and sideways. • Hold a position whilst balancing on different points of the body. • Climb safely on equipment. • Stretch and curl to develop flexibility. • Jump in a variety of ways and land with increasing control and balance. 	<ul style="list-style-type: none"> • Plan, perform and repeat sequences. • Move in a clear, fluent and expressive manner. • Refine movements into sequences. • Show changes of direction, speed and level during a performance. • Travel in a variety of ways, including flight, by transferring weight to generate power in movements. • Show a kinesthetic sense in order to improve the placement and alignment of body parts (e.g. in balances experiment to find out how to get the centre of gravity successfully over base and organise body parts to create an interesting body shape). • Swing and hang from equipment safely (using hands). 	<ul style="list-style-type: none"> • Create complex and well-executed sequences that include a full range of movements including: <ul style="list-style-type: none"> • travelling • balances • swinging • springing • flight • vaults • inversions • rotations • bending, stretching and twisting • gestures • linking skills. • Hold shapes that are strong, fluent and expressive. • Include in a sequence set pieces, choosing the most appropriate linking elements.
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				<ul style="list-style-type: none"> • Vary speed, direction, level and body rotation during floor performances. • Practise and refine the gymnastic techniques used in performances (listed above). • Demonstrate good kinesthetic awareness (placement and alignment of body parts is usually good in well-rehearsed actions). • Use equipment to vault and to swing (remaining upright).
Swimming	<ul style="list-style-type: none"> • Swim unaided up to 25 metres. • Use one basic stroke, breathing correctly. • Control leg movements. 	<ul style="list-style-type: none"> • Swim between 25 and 50 metres unaided. • Use more than one stroke and coordinate breathing as appropriate for the stroke being used. • Coordinate leg and arm movements. • Swim at the surface and below the water. 	<ul style="list-style-type: none"> • Swim over 100 metres unaided. • Use breast stroke, front crawl and back stroke, ensuring that breathing is correct so as not to interrupt the pattern of swimming. • Swim fluently with controlled strokes. • Turn efficiently at the end of a length. 	
Athletics	<ul style="list-style-type: none"> • Athletic activities are combined with games in Years 1 and 2. 	<ul style="list-style-type: none"> • Sprint over a short distance up to 60 metres. 	<ul style="list-style-type: none"> • Combine sprinting with low hurdles over 60 metres. 	

			<ul style="list-style-type: none"> • Run over a longer distance, conserving energy in order to sustain performance. • Use a range of throwing techniques (such as under arm, over arm). • Throw with accuracy to hit a target or cover a distance. • Jump in a number of ways, using a run up where appropriate. • Compete with others and aim to improve personal best performances. 	<ul style="list-style-type: none"> • Choose the best place for running over a variety of distances. • Throw accurately and refine performance by analysing technique and body shape. • Show control in take off and landings when jumping. • Compete with others and keep track of personal best performances, setting targets for improvement.
Outdoor and adventurous activities	<ul style="list-style-type: none"> • Not applicable. 	<ul style="list-style-type: none"> • Arrive properly equipped for outdoor and adventurous activity. • Understand the need to show accomplishment in managing risks. • Show an ability to both lead and form part of a team. • Support others and seek support if required when the situation dictates. 	<ul style="list-style-type: none"> • Select appropriate equipment for outdoor and adventurous activity. • Identify possible risks and ways to manage them, asking for and listening carefully to expert advice. • Embrace both leadership and team roles and gain the commitment and respect of a team. • Empathise with others and offer support without being 	

			<ul style="list-style-type: none">• Show resilience when plans do not work and initiative to try new ways of working.• Use maps, compasses and digital devices to orientate themselves.• Remain aware of changing conditions and change plans if necessary.	<p>asked. Seek support from the team and the experts if in any doubt.</p> <ul style="list-style-type: none">• Remain positive even in the most challenging circumstances, rallying others if need be.• Use a range of devices in order to orientate themselves.• Quickly assess changing conditions and adapt plans to ensure safety comes first.
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Subject:	Art & Design
National Curriculum KS2 objectives:	<ul style="list-style-type: none"> • Use experiences, other subjects across the curriculum and ideas as inspiration for artwork. • Develop and share ideas in a sketchbook and in finished products. • Improve mastery of techniques. • Learn about the great artists, architects and designers in history.

Development:		<u>Milestone 1 (Y1/2)</u>	<u>Milestone 2 (Y3/4)</u>	<u>Milestone 3 (Y5/6)</u>
To develop ideas		<ul style="list-style-type: none"> • Respond to ideas and starting points. • Explore ideas and collect visual information. • Explore different methods and materials as ideas develop. 	<ul style="list-style-type: none"> • Develop ideas from starting points throughout the curriculum. • Collect information, sketches and resources. • Adapt and refine ideas as they progress. • Explore ideas in a variety of ways. • Comment on artworks using visual language. 	<ul style="list-style-type: none"> • Develop and imaginatively extend ideas from starting points throughout the curriculum. • Collect information, sketches and resources and present ideas imaginatively in a sketch book. • Use the qualities of materials to enhance ideas. • Spot the potential in unexpected results as work progresses. • Comment on artworks with a fluent grasp of visual language.
To master techniques	Painting	<ul style="list-style-type: none"> • Use thick and thin brushes. • Mix primary colours to make secondary. • Add white to colours to make tints and black to colours to make tones. • Create colour wheels. 	<ul style="list-style-type: none"> • Use a number of brush techniques using thick and thin brushes to produce shapes, textures, patterns and lines. • Mix colours effectively. • Use watercolour paint to produce washes for backgrounds then add detail. 	<ul style="list-style-type: none"> • Sketch (lightly) before painting to combine line and colour. • Create a colour palette based upon colours observed in the natural or built world. • Use the qualities of watercolour and acrylic

			<ul style="list-style-type: none"> • Experiment with creating mood with colour. 	<p>paints to create visually interesting pieces.</p> <ul style="list-style-type: none"> • Combine colours, tones and tints to enhance the mood of a piece. • Use brush techniques and the qualities of paint to create texture. • Develop a personal style of painting, drawing upon ideas from other artists.
	Collage	<ul style="list-style-type: none"> • Use a combination of materials that are cut, torn and glued. • Sort and arrange materials. • Mix materials to create texture. 	<ul style="list-style-type: none"> • Select and arrange materials for a striking effect. • Ensure work is precise. • Use coiling, overlapping, tessellation, mosaic and montage. 	<ul style="list-style-type: none"> • Mix textures (rough and smooth, plain and patterned). • Combine visual and tactile qualities. • Use ceramic mosaic materials and techniques.
	Sculpture	<ul style="list-style-type: none"> • Use a combination of shapes. • Include lines and texture. • Use rolled up paper, straws, paper, card and clay as materials. • Use techniques such as rolling, cutting, moulding and carving. 	<ul style="list-style-type: none"> • Create and combine shapes to create recognisable forms (e.g. shapes made from nets or solid materials). • Include texture that conveys feelings, expression or movement. • Use clay and other mouldable materials. • Add materials to provide interesting detail. 	<ul style="list-style-type: none"> • Show life-like qualities and real-life proportions or, if more abstract, provoke different interpretations. • Use tools to carve and add shapes, texture and pattern. • Combine visual and tactile qualities. • Use frameworks (such as wire or moulds) to provide stability and form.
	Drawing	<ul style="list-style-type: none"> • Draw lines of different sizes and thickness. 	<ul style="list-style-type: none"> • Use different hardnesses of pencils to show line, tone and texture. 	<ul style="list-style-type: none"> • Use a variety of techniques to add interesting effects (e.g.

	<ul style="list-style-type: none"> • Colour (own work) neatly following the lines. • Show pattern and texture by adding dots and lines. • Show different tones by using coloured pencils. 	<ul style="list-style-type: none"> • Annotate sketches to explain and elaborate ideas. • Sketch lightly (no need to use a rubber to correct mistakes). • Use shading to show light and shadow. • Use hatching and cross hatching to show tone and texture. 	<p>reflections, shadows, direction of sunlight).</p> <ul style="list-style-type: none"> • Use a choice of techniques to depict movement, perspective, shadows and reflection. • Choose a style of drawing suitable for the work (e.g. realistic or impressionistic). • Use lines to represent movement.
Print	<ul style="list-style-type: none"> • Use repeating or overlapping shapes. • Mimic print from the environment (e.g. wallpapers). • Use objects to create prints (e.g. fruit, vegetables or sponges). • Press, roll, rub and stamp to make prints. 	<ul style="list-style-type: none"> • Use layers of two or more colours. • Replicate patterns observed in natural or built environments. • Make printing blocks (e.g. from coiled string glued to a block). • Make precise repeating patterns. 	<ul style="list-style-type: none"> • Build up layers of colours. • Create an accurate pattern, showing fine detail. • Use a range of visual elements to reflect the purpose of the work.
Textiles	<ul style="list-style-type: none"> • Use weaving to create a pattern. • Join materials using glue and/or a stitch. • Use plaiting. 	<ul style="list-style-type: none"> • Shape and stitch materials. • Use basic cross stitch and back stitch. • Colour fabric. 	<ul style="list-style-type: none"> • Show precision in techniques. • Choose from a range of stitching techniques. • Combine previously learned techniques to create pieces.

		<ul style="list-style-type: none"> • Use dip dye techniques. 	<ul style="list-style-type: none"> • Create weavings. • Quilt, pad and gather fabric. 	
	Digital media	<ul style="list-style-type: none"> • Use a wide range of tools to create different textures, lines, tones, colours and shapes. 	<ul style="list-style-type: none"> • Create images, video and sound recordings and explain why they were created. 	<ul style="list-style-type: none"> • Enhance digital media by editing (including sound, video, animation, still images and installations).
To take inspiration from the greats (classic and modern)		<ul style="list-style-type: none"> • Describe the work of notable artists, artisans and designers. • Use some of the ideas of artists studied to create pieces. 	<ul style="list-style-type: none"> • Replicate some of the techniques used by notable artists, artisans and designers. • Create original pieces that are influenced by studies of others. 	<ul style="list-style-type: none"> • Give details (including own sketches) about the style of some notable artists, artisans and designers. • Show how the work of those studied was influential in both society and to other artists. • Create original pieces that show a range of influences and styles.

Subject:	Design & Technology
<p>National Curriculum KS2 objectives:</p>	<p>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment.</p> <p>When designing and making, pupils should be taught to:</p> <p>Design</p> <ul style="list-style-type: none"> • use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. • generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. <p>Make</p> <ul style="list-style-type: none"> • select from and use a wider range of tools and equipment to perform practical tasks, such as cutting, shaping, joining and finishing, accurately. • select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. <p>Evaluate</p> <ul style="list-style-type: none"> • investigate and analyse a range of existing products. • evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. • understand how key events and individuals in design and technology have helped shape the world <p>Technical knowledge</p>

	<ul style="list-style-type: none"> • apply their understanding of how to strengthen, stiffen and reinforce more complex structures. • understand and use mechanical systems in their products, such as gears, pulleys, cams, levers and linkages. • understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs, buzzers and motors. • apply their understanding of computing to programme, monitor and control their products. <p>Cooking and nutrition</p> <ul style="list-style-type: none"> • understand and apply the principles of a healthy and varied diet. • prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. • understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.
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<u>Development:</u>	<u>-</u>	<u>Milestone 1 (Y1/2)</u>	<u>Milestone 2 (Y3/4)</u>	<u>Milestone 3 (Y5/6)</u>
To master practical skills	Food	<ul style="list-style-type: none"> • Cut, peel or grate ingredients safely and hygienically. • Measure or weigh using measuring cups or electronic scales. • Assemble or cook ingredients. 	<ul style="list-style-type: none"> • Prepare ingredients hygienically using appropriate utensils. • Measure ingredients to the nearest gram accurately. • Follow a recipe. • Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking). 	<ul style="list-style-type: none"> • Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms). • Measure accurately and calculate ratios of ingredients to scale up or down from a recipe. • Demonstrate a range of baking and cooking techniques.

				<ul style="list-style-type: none"> • Create and refine recipes, including ingredients, methods, cooking times and temperatures.
	Materials	<ul style="list-style-type: none"> • Cut materials safely using tools provided. • Measure and mark out to the nearest centimetre. • Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). • Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen). 	<ul style="list-style-type: none"> • Cut materials accurately and safely by selecting appropriate tools. • Measure and mark out to the nearest millimetre. • Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). • Select appropriate joining techniques. 	<ul style="list-style-type: none"> • Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape). • Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper).
	Textiles	<ul style="list-style-type: none"> • Shape textiles using templates. • Join textiles using running stitch. • Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing). 	<ul style="list-style-type: none"> • Understand the need for a seam allowance. • Join textiles with appropriate stitching. • Select the most appropriate techniques to decorate textiles. 	<ul style="list-style-type: none"> • Create objects (such as a cushion) that employ a seam allowance. • Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration). • Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as a soft decoration for comfort on a cushion).

	Electricals and electronics	<ul style="list-style-type: none"> • Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage). 	<ul style="list-style-type: none"> • Create series and parallel circuits 	<ul style="list-style-type: none"> • Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips).
	Computing	<ul style="list-style-type: none"> • Model designs using software. 	<ul style="list-style-type: none"> • Control and monitor models using software designed for this purpose. 	<ul style="list-style-type: none"> • Write code to control and monitor models or products.
	Construction	<ul style="list-style-type: none"> • Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products. 	<ul style="list-style-type: none"> • Choose suitable techniques to construct products or to repair items. • Strengthen materials using suitable techniques. 	<ul style="list-style-type: none"> • Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filing and sanding).
	Mechanics	<ul style="list-style-type: none"> • Create products using levers, wheels and winding mechanisms. 	<ul style="list-style-type: none"> • Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears). 	<ul style="list-style-type: none"> • Convert rotary motion to linear using cams. • Use innovative combinations of electronics (or computing) and mechanics in product designs.
To design, make, evaluate and improve		<ul style="list-style-type: none"> • Design products that have a clear purpose and an intended user. • Make products, refining the design as work progresses. • Use software to design. 	<ul style="list-style-type: none"> • Design with purpose by identifying opportunities to design. • Make products by working efficiently (such as by carefully selecting materials). • Refine work and techniques as work progresses, continually evaluating the product design. 	<ul style="list-style-type: none"> • Design with the user in mind, motivated by the service a product will offer (rather than simply for profit). • Make products through stages of prototypes, making continual refinements. • Ensure products have a high quality finish, using art skills where appropriate.

			<ul style="list-style-type: none"> • Use software to design and represent product designs. 	<ul style="list-style-type: none"> • Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.
To take inspiration from design throughout history		<ul style="list-style-type: none"> • Explore objects and designs to identify likes and dislikes of the designs. • Suggest improvements to existing designs. • Explore how products have been created. 	<ul style="list-style-type: none"> • Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs. • Improve upon existing designs, giving reasons for choices. • Disassemble products to understand how they work. 	<ul style="list-style-type: none"> • Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices. • Create innovative designs that improve upon existing products. • Evaluate the design of products so as to suggest improvements to the user experience.

Subject:	Geography
National Curriculum KS2 objectives:	<ul style="list-style-type: none"> • Locate the world's countries, with a focus on Europe and countries of particular interest to pupils. • Locate the world's countries, with focus on North and South America and countries of particular interest to pupils. • Identify key geographical features of the countries of the United Kingdom, and show an understanding of how some of these aspects have changed over time. • Locate the geographic zones of the world. • Understand the significance of the geographic zones of the world. • Understand geographical similarities and differences through the study of human and physical geography of a region or area of the United Kingdom (different from that taught at Key Stage 1). • Understand geographical similarities and differences through the study of human and physical geography of a region or area in a European country. • Understand geographical similarities and differences through the study of the human and physical geography of a region or area within North or South America. • Describe and understand key aspects of: <ul style="list-style-type: none"> • physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes and the water cycle • human geography, including: settlements, land use, economic activity including trade links and the distribution of natural resources including energy, food, minerals and water supplies. • Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.

	<ul style="list-style-type: none"> • Use the eight points of a compass, four-figure grid references, symbols and keys (including the use of Ordnance Survey maps) to build knowledge of the United Kingdom and the world. • Use a wide range of geographical sources in order to investigate places and patterns. • Use fieldwork to observe, measure and record the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs and digital technologies.
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Development:	-	Milestone 1 (Y1/2)	Milestone 2 (Y3/4)	Milestone 3 (Y5/6)
To investigate places		<ul style="list-style-type: none"> • Ask and answer geographical questions (such as: What is this place like? What or who will I see in this place? What do people do in this place?). • Identify the key features of a location in order to say whether it is a city, town, village, coastal or rural area. • Use world maps, atlases and globes to identify the United Kingdom and its countries, as well as the countries, continents and oceans studied. • Use simple fieldwork and observational skills to study the geography of the school and the key human and physical features of its surrounding environment. • Use aerial images and plan perspectives to recognise 	<ul style="list-style-type: none"> • Ask and answer geographical questions about the physical and human characteristics of a location. • Explain own views about locations, giving reasons. • Use maps, atlases, globes and digital/computer mapping to locate countries and describe features. • Use fieldwork to observe and record the human and physical features in the local area using a range of methods including sketch maps, plans and graphs and digital technologies. • Use a range of resources to identify the key physical and human features of a location. • Name and locate counties and cities of the United 	<ul style="list-style-type: none"> • Collect and analyse statistics and other information in order to draw clear conclusions about locations. • Identify and describe how the physical features affect the human activity within a location. • Use a range of geographical resources to give detailed descriptions and opinions of the characteristic features of a location. • Use different types of fieldwork sampling (random and systematic) to observe, measure and record the human and physical features in the local area. Record the results in a range of ways. • Analyse and give views on the effectiveness of different geographical representations of a location (such as aerial images compared with maps)

	<p>landmarks and basic physical features.</p> <ul style="list-style-type: none"> • Name, locate and identify characteristics of the four countries and capital cities of the United Kingdom and its surrounding seas. • Name and locate the world's continents and oceans. 	<p>Kingdom, geographical regions and their identifying human and physical characteristics, including hills, mountains, cities, rivers, key topographical features and land-use patterns; and understand how some of these aspects have changed over time.</p> <ul style="list-style-type: none"> • Name and locate the countries of Europe and identify their main physical and human characteristics. 	<p>and topological maps - as in London's Tube map).</p> <ul style="list-style-type: none"> • Name and locate some of the countries and cities of the world and their identifying human and physical characteristics, including hills, mountains, rivers, key topographical features and land-use patterns; and understand how some of these aspects have changed over time. • Name and locate the countries of North and South America and identify their main physical and human characteristics.
To investigate patterns	<ul style="list-style-type: none"> • Understand geographical similarities and differences through studying the human and physical geography of a small area of the United Kingdom and of a contrasting non-European country. • Identify seasonal and daily weather patterns in the United Kingdom and the location of hot and cold areas of the world in relation to the Equator and the North and South Poles. • Identify land use around the school. 	<ul style="list-style-type: none"> • Name and locate the Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle and date time zones. Describe some of the characteristics of these geographical areas. • Describe geographical similarities and differences between countries. • Describe how the locality of the school has changed over time. 	<ul style="list-style-type: none"> • Identify and describe the geographical significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, and time zones (including day and night). • Understand some of the reasons for geographical similarities and differences between countries. • Describe how locations around the world are changing and explain some of the reasons for change.

			<ul style="list-style-type: none"> • Describe geographical diversity across the world. • Describe how countries and geographical regions are interconnected and interdependent.
To communicate geographically	<ul style="list-style-type: none"> • Use basic geographical vocabulary to refer to: <ul style="list-style-type: none"> • key physical features, including: beach, coast, forest, hill, mountain, ocean, river, soil, valley, vegetation and weather. • key human features, including: city, town, village, factory, farm, house, office and shop. • Use compass directions (north, south, east and west) and locational language (e.g. near and far) to describe the location of features and routes on a map. • Devise a simple map; and use and construct basic symbols in a key. Use simple grid references (A1, B1). 	<ul style="list-style-type: none"> • Describe key aspects of: <ul style="list-style-type: none"> • physical geography, including: rivers, mountains, volcanoes and earthquakes and the water cycle. • human geography, including: settlements and land use. • Use the eight points of a compass, four-figure grid references, symbols and key to communicate knowledge of the United Kingdom and the wider world. 	<ul style="list-style-type: none"> • Describe and understand key aspects of: <ul style="list-style-type: none"> • physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes and the water cycle. • human geography, including: settlements, land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals, and water supplies. • Use the eight points of a compass, four-figure grid references, symbols and a key (that uses standard Ordnance Survey symbols) to communicate knowledge of the United Kingdom and the world. • Create maps of locations identifying patterns (such as: land use, climate zones, population densities, height of land).

Subject:	History
<p>National Curriculum KS2 objectives:</p>	<ul style="list-style-type: none"> • Changes in Britain from the Stone Age to the Iron Age. • The Roman Empire and its Impact on Britain. • Britain's settlement by Anglo Saxons and Scots. • The Viking and Anglo Saxon struggle for the Kingdom of England. • A local history study. • A study of a theme in British history. • Early Civilizations achievements and an in-depth study of one of the following: Ancient Sumer; The Indus Valley; Ancient Egypt; The Shang Dynasty. • Ancient Greece. • A non- European society that contrasts with British history <p>chosen from:</p> <ul style="list-style-type: none"> • Early Islamic Civilization • Mayan Civilization • Benin. <p>History of interest to pupils*</p> <p>* Items marked * are not statutory.</p>

Development:	Milestone 1 (Y1/2)	Milestone 2 (Y3/4)	Milestone 3 (Y5/6)
To investigate and interpret the past	<ul style="list-style-type: none"> • Observe or handle evidence to ask questions and find answers to questions about the past. • Ask questions such as: What was it like for people? What happened? How long ago? • Use artefacts, pictures, stories, online sources and databases to find out about the past. • Identify some of the different ways the past has been represented. 	<ul style="list-style-type: none"> • Use evidence to ask questions and find answers to questions about the past. • Suggest suitable sources of evidence for historical enquiries. • Use more than one source of evidence for historical enquiry in order to gain a more accurate understanding of history. • Describe different accounts of a historical event, explaining some of the reasons why the accounts may differ. • Suggest causes and consequences of some of the main events and changes in history. 	<ul style="list-style-type: none"> • Use sources of evidence to deduce information about the past. • Select suitable sources of evidence, giving reasons for choices. • Use sources of information to form testable hypotheses about the past. • Seek out and analyse a wide range of evidence in order to justify claims about the past. • Show an awareness of the concept of propaganda and how historians must understand the social context of evidence studied. • Understand that no single source of evidence gives the full answer to questions about the past. • Refine lines of enquiry as appropriate.
To build an overview of world history	<ul style="list-style-type: none"> • Describe historical events. • Describe significant people from the past. • Recognise that there are reasons why people in the past acted as they did. 	<ul style="list-style-type: none"> • Describe changes that have happened in the locality of the school throughout history. • Give a broad overview of life in Britain from ancient until medieval times. 	<ul style="list-style-type: none"> • Identify continuity and change in the history of the locality of the school. • Give a broad overview of life in Britain from medieval until the Tudor and Stuarts times.

		<ul style="list-style-type: none"> • Compare some of the times studied with those of other areas of interest around the world. • Describe the social, ethnic, cultural or religious diversity of past society. • Describe the characteristic features of the past, including ideas, beliefs, attitudes and experiences of men, women and children. 	<ul style="list-style-type: none"> • Compare some of the times studied with those of the other areas of interest around the world. • Describe the social, ethnic, cultural or religious diversity of past society. • Describe the characteristic features of the past, including ideas, beliefs, attitudes and experiences of men, women and children.
To understand chronology	<ul style="list-style-type: none"> • Place events and artefacts in order on a time line. • Label time lines with words or phrases such as: past, present, older and newer. • Recount changes that have occurred in their own lives. • Use dates where appropriate. 	<ul style="list-style-type: none"> • Place events, artefacts and historical figures on a time line using dates. • Understand the concept of change over time, representing this, along with evidence, on a time line. • Use dates and terms to describe events. 	<ul style="list-style-type: none"> • Describe the main changes in a period of history (using terms such as: social, religious, political, technological and cultural). • Identify periods of rapid change in history and contrast them with times of relatively little change. • Understand the concepts of continuity and change over time, representing them, along with evidence, on a time line. • Use dates and terms accurately in describing events.
To communicate historically	<ul style="list-style-type: none"> • Use words and phrases such as: a long time ago, recently, when my parents/carers were children, years, decades and centuries to describe the passing of time. 	<ul style="list-style-type: none"> • Use appropriate historical vocabulary to communicate, including: <ul style="list-style-type: none"> • dates 	<ul style="list-style-type: none"> • Use appropriate historical vocabulary to communicate, including: <ul style="list-style-type: none"> • dates

	<ul style="list-style-type: none"> • Show an understanding of the concept of nation and a nation's history. • Show an understanding of concepts such as civilisation, monarchy, parliament, democracy, and war and peace. 	<ul style="list-style-type: none"> • time period • era • change • chronology. • Use literacy, numeracy and computing skills to a good standard in order to communicate information about the past. 	<ul style="list-style-type: none"> • time period • era • chronology • continuity • change • century • decade • legacy. • Use literacy, numeracy and computing skills to a exceptional standard in order to communicate information about the past. • Use original ways to present information and ideas.
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Subject:	Languages
National Curriculum KS2 objectives:	<ul style="list-style-type: none"> ▪ understand and respond to spoken and written language from a variety of authentic sources ▪ speak with increasing confidence, fluency and spontaneity, finding ways of communicating what they want to say, including through discussion and asking questions, and continually improving the accuracy of their pronunciation and intonation ▪ can write at varying length, for different purposes and audiences, using the variety of grammatical structures that they have learnt ▪ discover and develop an appreciation of a range of writing in the language studied.

Development:	Milestone 1 (Y1/2)	Milestone 2 (Y3/4)	Milestone 3 (Y5/6)
To read fluently	<p>Milestone 1 (optional)</p> <ul style="list-style-type: none"> • Read out loud everyday words and phrases. • Use phonic (or logographic in Mandarin) knowledge to read words. • Read and understand short written phrases. • Read out loud familiar words and phrases. • Use books or glossaries to find out the meanings of new words. 	<ul style="list-style-type: none"> • Read and understand the main points in short written texts. • Read short texts independently. • Use a translation dictionary or glossary to look up new words. 	<ul style="list-style-type: none"> • Read and understand the main points and some of the detail in short written texts. • Use the context of a sentence or a translation dictionary to work out the meaning of unfamiliar words. • Read and understand the main points and opinions in written texts from various contexts, including present, past or future events. • Show confidence in reading aloud, and in using reference materials.
To write imaginatively	<ul style="list-style-type: none"> • Write or copy everyday words correctly. 	<ul style="list-style-type: none"> • Write a few short sentences using familiar expressions. 	<ul style="list-style-type: none"> • Write short texts on familiar topics.

	<ul style="list-style-type: none"> • Label items and choose appropriate words to complete short sentences. • Write one or two short sentences. • Write short phrases used in everyday conversations correctly. 	<ul style="list-style-type: none"> • Express personal experiences and responses. • Write short phrases from memory with spelling that is readily understandable. 	<ul style="list-style-type: none"> • Use knowledge of grammar (or pitch in Mandarin) to enhance or change the meaning of phrases. • Use dictionaries or glossaries to check words. • Refer to recent experiences or future plans, as well as to everyday activities. • Include imaginative and adventurous word choices. • Convey meaning (although there may be some mistakes, the meaning can be understood with little or no difficulty). • Use dictionaries or glossaries to check words.
To speak confidently	<ul style="list-style-type: none"> • Understand a range of spoken phrases. • Understand standard language (sometimes asking for words or phrases to be repeated). • Answer simple questions and give basic information. 	<ul style="list-style-type: none"> • Understand the main points from spoken passages. • Ask others to repeat words or phrases if necessary. • Ask and answer simple questions and talk about interests. 	<ul style="list-style-type: none"> • Understand the main points and opinions in spoken passages. • Give a short prepared talk that includes opinions. • Take part in conversations to seek and give information.

	<ul style="list-style-type: none"> • Give responses to questions about everyday events. • Pronounce words showing a knowledge of sound (or pitch in Mandarin) patterns. 	<ul style="list-style-type: none"> • Take part in discussions and tasks. • Demonstrate a growing vocabulary. 	<ul style="list-style-type: none"> • Refer to recent experiences or future plans, everyday activities and interests. • Vary language and produce extended responses. • Be understood with little or no difficulty.
To understand the culture of the countries in which the language is spoken	<ul style="list-style-type: none"> • Identify countries and communities where the language is spoken. • Demonstrate some knowledge and understanding of the customs and features of the countries or communities where the language is spoken. • Show awareness of the social conventions when speaking to someone. 	<ul style="list-style-type: none"> • Describe with some interesting details some aspects of countries or communities where the language is spoken. • Make comparisons between life in countries or communities where the language is spoken and this country. 	<ul style="list-style-type: none"> • Give detailed accounts of the customs, history and culture of the countries and communities where the language is spoken. • Describe, with interesting detail, some similarities and differences between countries and communities where the language is spoken and this country.

Subject:	Music
National Curriculum KS2 objectives:	<ul style="list-style-type: none"> • Play and perform in solo and ensemble contexts, using voice and playing instruments with increasing accuracy, control and expression. • Improvise and compose music using the inter-related dimensions of music separately and in combination. • Listen with attention to detail and recall sounds with increasing aural memory. • Use and understand the basics of the staff and other musical notations. • Appreciate and understand a wide range of high-quality live and recorded music from different traditions and from great musicians and composers. • Develop an understanding of the history of music.

Development:	Milestone 1 (Y1/2)	Milestone 2 (Y3/4)	Milestone 3 (Y5/6)
To perform	<ul style="list-style-type: none"> • Take part in singing, accurately following the melody. • Follow instructions on how and when to sing or play an instrument. • Make and control long and short sounds, using voice and instruments. • Imitate changes in pitch. 	<ul style="list-style-type: none"> • Sing from memory with accurate pitch. • Sing in tune. • Maintain a simple part within a group. • Pronounce words within a song clearly. • Show control of voice. • Play notes on an instrument with care so that they are clear. 	<ul style="list-style-type: none"> • Sing or play from memory with confidence. • Perform solos or as part of an ensemble. • Sing or play expressively and in tune. • Hold a part within a round. • Sing a harmony part confidently and accurately. • Sustain a drone or a melodic ostinato to accompany singing. • Perform with controlled breathing (voice) and skillful playing (instrument).

		<ul style="list-style-type: none"> • Perform with control and awareness of others. 	
To compose	<ul style="list-style-type: none"> • Create a sequence of long and short sounds. • Clap rhythms. • Create a mixture of different sounds (long and short, loud and quiet, high and low). • Choose sounds to create an effect. • Sequence sounds to create an overall effect. • Create short, musical patterns. • Create short, rhythmic phrases. 	<ul style="list-style-type: none"> • Compose and perform melodic songs. • Use sound to create abstract effects. • Create repeated patterns with a range of instruments. • Create accompaniments for tunes. • Use drones as accompaniments. • Choose, order, combine and control sounds to create an effect. • Use digital technologies to compose pieces of music. 	<ul style="list-style-type: none"> • Create songs with verses and a chorus. • Create rhythmic patterns with an awareness of timbre and duration. • Combine a variety of musical devices, including melody, rhythm and chords. • Thoughtfully select elements for a piece in order to gain a defined effect. • Use drones and melodic ostinati (based on the pentatonic scale). • Convey the relationship between the lyrics and the melody. • Use digital technologies to compose, edit and refine pieces of music.
To transcribe	<ul style="list-style-type: none"> • Use symbols to represent a composition and use them to help with a performance. 	<ul style="list-style-type: none"> • Devise non-standard symbols to indicate when to play and rest. • Recognise the notes EGBDF and FACE on the musical stave. • Recognise the symbols for a minim, crotchet and semibreve and say how many beats they represent. 	<ul style="list-style-type: none"> • Use the standard musical notation of crotchet, minim and semibreve to indicate how many beats to play. • Read and create notes on the musical stave. • Understand the purpose of the treble and bass clefs and use them in transcribing compositions.

			<ul style="list-style-type: none"> • Understand and use the # (sharp) and ♭ (flat) symbols. • Use and understand simple time signatures.
To describe music	<ul style="list-style-type: none"> • Identify the beat of a tune. • Recognise changes in timbre, dynamics and pitch. 	<ul style="list-style-type: none"> • Use the terms: duration, timbre, pitch, beat, tempo, texture and use of silence to describe music. • Evaluate music using musical vocabulary to identify areas of likes and dislikes. • Understand layers of sounds and discuss their effect on mood and feelings. 	<ul style="list-style-type: none"> • Choose from a wide range of musical vocabulary to accurately describe and appraise music including: <ul style="list-style-type: none"> • pitch, dynamics, tempo, timbre, texture, lyrics and melody, sense of occasion, expressive, solo, round, harmonies, accompaniments, drones, cyclic patterns, combination of musical elements, cultural context. • Describe how lyrics often reflect the cultural context of music and have social meaning.

Subject: Religious Education	
Key Curriculum Objectives:	<ul style="list-style-type: none"> • To study the beliefs, festivals and celebrations of Christianity. • To understand practices and lifestyles • To understand how beliefs are conveyed • To understand values • Study at least two other religions in depth. Choose from Buddhism, Hinduism, Islam, Judaism or Sikhism. • Study three of the major six religions not studied in depth in order to gain a brief outline. • Study other religions of interest to pupils

	Milestone 1 (Y1/2)	Milestone 2 (Y3/4)	Milestone 3 (Y5/6)
To understand beliefs and teachings	<ul style="list-style-type: none"> • Describe some of the teachings of a religion. • Describe some of the main festivals or celebrations of a religion. 	<ul style="list-style-type: none"> • Present the key teachings and beliefs of a religion. • Refer to religious figures and holy books to explain answers. 	<ul style="list-style-type: none"> • Explain how some teachings and beliefs are shared between religions. • Explain how religious beliefs shape the lives of individuals and communities.
To understand practices and lifestyles	<ul style="list-style-type: none"> • Recognise, name and describe some religious artefacts, places and practices. 	<ul style="list-style-type: none"> • Identify religious artefacts and explain how and why they are used. • Describe religious buildings and explain how they are used. • Explain some of the religious practices of both clerics and individuals. 	<ul style="list-style-type: none"> • Explain the practices and lifestyles involved in belonging to a faith community. • Compare and contrast the lifestyles of different faith groups and give reasons why some within the same faith may adopt different lifestyles. • Show an understanding of the role of a spiritual leader.

<p>To understand how beliefs are conveyed</p>	<ul style="list-style-type: none"> • Name some religious symbols. • Explain the meaning of some religious symbols. 	<ul style="list-style-type: none"> • Identify religious symbolism in literature and the arts. 	<ul style="list-style-type: none"> • Explain some of the different ways that individuals show their beliefs.
<p>To reflect</p>	<ul style="list-style-type: none"> • Identify the things that are important in their own lives and compare these to religious beliefs. • Relate emotions to some of the experiences of religious figures studied. • Ask questions about puzzling aspects of life. 	<ul style="list-style-type: none"> • Show an understanding that personal experiences and feelings influence attitudes and actions. • Give some reasons why religious figures may have acted as they did. • Ask questions that have no universally agreed answers. 	<ul style="list-style-type: none"> • Recognise and express feelings about their own identities. Relate these to religious beliefs or teachings. • Explain their own ideas about the answers to ultimate questions. • Explain why their own answers to ultimate questions may differ from those of others.
<p>To understand values</p>	<ul style="list-style-type: none"> • Identify how they have to make their own choices in life. • Explain how actions affect others. • Show an understanding of the term 'morals'. 	<ul style="list-style-type: none"> • Explain how beliefs about right and wrong affect people's behaviour. • Describe how some of the values held by communities or individuals affect behaviour and actions. • Discuss and give opinions on stories involving moral dilemmas. 	<ul style="list-style-type: none"> • Explain why different religious communities or individuals may have a different view of what is right and wrong. • Show an awareness of morals and right and wrong beyond rules (i.e. wanting to act in a certain way despite rules). • Express their own values and remain respectful of those with different values.