

# National Curriculum Expectations

## Year 5

### Core Subjects

English					
Spoken Language					
<ul style="list-style-type: none"> <li>Read and discuss a wide range of fiction, poetry, plays, non-fiction and reference books or textbooks.</li> <li>Prepare and read aloud poetry and plays by heart showing understanding of intonation, tone and volume to clarify meaning</li> <li>Ask questions to ensure clarity of meaning</li> <li>When discussing texts; challenge opinions in a courteous way</li> <li>Begin to debate texts</li> </ul>					
Reading					
Reading - word reading		Reading - Comprehension			
<ul style="list-style-type: none"> <li>Apply knowledge of root words, prefixes and suffixes to read aloud and to understand the meaning of new words</li> </ul>		<ul style="list-style-type: none"> <li>Read a range of texts that are structured in different ways</li> <li>Read a range of texts including: myths, legends, traditional stories, modern fiction, fiction from our literary heritage, stories from other cultures and traditions</li> <li>Make recommendations based on texts read and give reasons for choices</li> <li>Make comparisons within books and across books</li> <li>Draw inferences and justifying these with evidence from texts</li> <li>Make predictions and summarise what has been read</li> <li>Distinguish between fact and opinion</li> <li>Retrieve, record and present information from non-fiction texts</li> </ul>			
Writing					
Spelling		Handwriting	Composition	Grammar and punctuation	
<p>Prefixes</p> <ul style="list-style-type: none"> <li>Understand guidelines for adding prefixes</li> <li>under, over, en, em</li> <li>mid, pre, fore, non</li> <li>Hyphenating prefixes</li> </ul> <p>Suffixes</p> <ul style="list-style-type: none"> <li>Word endings with the 'shun' sound- tion, -sion, -ssion, -cian,</li> <li>Word endings with the 'shus' sound e.g -cious, -tious</li> <li>Word endings with the 'shul' sound e.g. -tial, -cial</li> <li>Word endings – 'ant' and 'ent'</li> <li>Word endings 'ance', 'ancy', 'ence', 'ency'.</li> </ul>		<ul style="list-style-type: none"> <li>Word endings- able, ible, ably, ibly</li> <li>Converting nouns or adj to verbs using suffixes, ate; ise; ify, ily,ous</li> <li>Ei and ie words</li> <li>Wordswith 'ough 'in</li> <li>Unstressed vowels</li> <li>silent letters--(kn, wr, umb, h)</li> <li>Use dictionaries to check spelling</li> <li>Use first ¾ letters to find words in a dictionary</li> <li>Use a thesaurus</li> <li>Homophones</li> </ul>	<ul style="list-style-type: none"> <li>Choose writing implement best suited for task</li> <li>Write legibly, fluidly, with increasing speed and personal style</li> </ul>	<ul style="list-style-type: none"> <li>Plan writing through identifying audience</li> <li>Plan noting initial ideas and drawing on research where necessary</li> <li>Select appropriate grammar and vocabulary</li> <li>Integrate dialogue in narrative to convey characters and advance action</li> <li>Use a range of organisational and presentational features to guide the reader</li> <li>Ensure correct use of tense throughout</li> <li>Assess own and others writing making suggestions to improve it</li> <li>Propose changes to grammar, vocabulary and punctuation to clarify meaning</li> <li>Proof read</li> </ul>	<ul style="list-style-type: none"> <li>Revise and build upon skills from Y4</li> <li>Recognise structures for formal speech</li> <li>Relative clauses</li> <li>Use modal verbs or adverbs to indicate degrees of possibility</li> <li>Use devices to build cohesion within a paragraph</li> <li>Use of adverbials of time, place, number or tense choice</li> <li>Use commas to clarify meaning and avoid ambiguity</li> <li>Begin to use hyphens, brackets, and commas to indicate parenthesis</li> <li>Punctuate bullet points consistently</li> </ul>

Mathematics			
Number			
Number and Place Value	Addition and Subtraction	Multiplication and Division	Fractions including decimals and percentages
<ul style="list-style-type: none"> <li>• read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit</li> <li>• count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000</li> <li>• interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero</li> <li>• round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000</li> <li>• solve number problems and practical problems that involve all of the above</li> <li>• read Roman numerals to 1000 (M) and recognise years written in Roman numerals.</li> </ul>	<ul style="list-style-type: none"> <li>• add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)</li> <li>• add and subtract numbers mentally with increasingly large numbers</li> <li>• use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</li> <li>• solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</li> </ul>	<ul style="list-style-type: none"> <li>• identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers</li> <li>• know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers</li> <li>• establish whether a number up to 100 is prime and recall prime numbers up to 19</li> <li>• multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers</li> <li>• multiply and divide numbers mentally drawing upon known facts</li> <li>• divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context</li> <li>• multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</li> </ul>	<ul style="list-style-type: none"> <li>• compare and order fractions whose denominators are all multiples of the same number</li> <li>• identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths</li> <li>• recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements <math>&gt; 1</math> as a mixed number [for example, <math>\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}</math>]</li> <li>• add and subtract fractions with the same denominator and denominators that are multiples of the same number</li> <li>• multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams</li> <li>• read and write decimal numbers as fractions [for example, <math>0.71 = \frac{71}{100}</math>]</li> <li>• recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</li> <li>• round decimals with two decimal places to the nearest whole number and to one decimal place</li> <li>• read, write, order and compare numbers with up to three decimal places</li> <li>• solve problems involving number up to three decimal places</li> <li>• recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal</li> <li>• solve problems which require knowing percentage and decimal equivalents of <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{5}</math>, <math>\frac{2}{5}</math>, <math>\frac{4}{5}</math> and those fractions with a denominator of a multiple of 10 or 25.</li> </ul>

National Curriculum Expectations  
Year 5

Measurement	Geometry- Properties of shapes	Geometry – Position and direction	Statistics
<ul style="list-style-type: none"> <li>• convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)</li> <li>• understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints</li> <li>• measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres</li> <li>• calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>) and estimate the area of irregular shapes</li> <li>• estimate volume [for example, using 1 cm<sup>3</sup> blocks to build cuboids (including cubes)] and capacity [for example, using water]</li> <li>• solve problems involving converting between units of time</li> <li>• use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.</li> </ul>	<ul style="list-style-type: none"> <li>• identify 3-D shapes, including cubes and other cuboids, from 2-D representations</li> <li>• know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles</li> <li>• draw given angles, and measure them in degrees (°)</li> </ul> <p>Identify:</p> <ul style="list-style-type: none"> <li>• angles at a point and one whole turn (total 360°)</li> <li>• angles at a point on a straight line and <math>\frac{1}{2}</math> a turn (total 180°)</li> <li>• other multiples of 90°</li> <li>• use the properties of rectangles to deduce related facts and find missing lengths and angles</li> <li>• distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</li> </ul>	<ul style="list-style-type: none"> <li>• identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.</li> </ul>	<ul style="list-style-type: none"> <li>• solve comparison, sum and difference problems using information presented in a line graph</li> <li>• complete, read and interpret information in tables, including timetables.</li> </ul>

Science				
Working scientifically				
<p>During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> <li>planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</li> <li>taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</li> <li>recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</li> <li>using test results to make predictions to set up further comparative and fair tests</li> <li>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</li> <li>identifying scientific evidence that has been used to support or refute ideas or arguments.</li> </ul>				
Living things and their habitats	Animals including humans	Properties and changes of materials	Earth and space	Forces
<ul style="list-style-type: none"> <li>describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</li> <li>describe the life process of reproduction in some plants and animals.</li> </ul>	<ul style="list-style-type: none"> <li>describe the changes as humans develop to old age.</li> </ul>	<ul style="list-style-type: none"> <li>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</li> <li>know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution</li> <li>use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating</li> <li>give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic</li> <li>demonstrate that dissolving, mixing and changes of state are reversible changes</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>describe the movement of the Earth, and other planets, relative to the Sun in the solar system</li> <li>describe the movement of the Moon relative to the Earth</li> <li>describe the Sun, Earth and Moon as approximately spherical bodies</li> <li>use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</li> </ul>	<ul style="list-style-type: none"> <li>explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</li> <li>identify the effects of air resistance, water resistance and friction, that act between moving surfaces</li> <li>recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</li> </ul>

## Foundation Subjects

**Art and Design - Key stage 2**

- to create sketch books to record their observations and use them to review and revisit ideas
- to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]
- about great artists, architects and designers in history.

**Computing - Key stage 2**

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

**Design Technology – Key stage2**

Design	Make	Evaluate	Technical Knowledge	Cooking and nutrition
<ul style="list-style-type: none"> <li>• 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</li> <li>• generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</li> </ul>	<ul style="list-style-type: none"> <li>• select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</li> <li>• 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</li> </ul>	<ul style="list-style-type: none"> <li>• investigate and analyse a range of existing products</li> <li>• evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</li> <li>• understand how key events and individuals in design and technology have helped shape the world</li> </ul>	<ul style="list-style-type: none"> <li>• apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> <li>• understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</li> <li>• understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</li> <li>• apply their understanding of computing to program, monitor and control their products.</li> </ul>	<ul style="list-style-type: none"> <li>• understand and apply the principles of a healthy and varied diet</li> <li>• prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</li> <li>• understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed</li> </ul>

Geography - Key stage 2			
Location Knowledge	Place Knowledge	Human and physical geography	Geographical skills and fieldwork
<ul style="list-style-type: none"> <li>locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities</li> <li>name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time</li> <li>identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)</li> </ul>	<ul style="list-style-type: none"> <li>understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America</li> </ul>	<p>Describe and understand key aspects of:</p> <ul style="list-style-type: none"> <li>physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle</li> <li>human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water</li> </ul>	<ul style="list-style-type: none"> <li>use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied</li> <li>use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world</li> <li>use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.</li> </ul>

**History - Key stage 2**

- Pupils should continue to develop a chronologically secure knowledge and understanding of British, local and world history, establishing clear narratives within and across the periods they study.
- They should note connections, contrasts and trends over time and develop the appropriate use of historical terms.
- They should regularly address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance.
- They should construct informed responses that involve thoughtful selection and organisation of relevant historical information.
- They should understand how our knowledge of the past is constructed from a range of sources.
- 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 to the time of Edward the Confessor
- a local history study
- a study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066
- the achievements of the earliest civilizations – an overview of where and when the first civilizations appeared and a depth study of one of the following: Ancient Sumer; The Indus Valley; Ancient Egypt; The Shang Dynasty of Ancient China
- Ancient Greece – a study of Greek life and achievements and their influence on the western world
- a non-European society that provides contrasts with British history – one study chosen from: early Islamic civilization, including a study of Baghdad c. AD 900; Mayan civilization c. AD 900; Benin (West Africa) c. AD 900-1300.

**Language - Key stage 2**

- listen attentively to spoken language and show understanding by joining in and responding
- explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words
- engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help\*
- speak in sentences, using familiar vocabulary, phrases and basic language structures
- develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases\*
- present ideas and information orally to a range of audiences\*
- read carefully and show understanding of words, phrases and simple writing
- appreciate stories, songs, poems and rhymes in the language
- broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary
- write phrases from memory, and adapt these to create new sentences, to express ideas clearly
- describe people, places, things and actions orally\* and in writing
- understand basic grammar appropriate to the language being studied, including (where relevant): feminine, masculine and neuter forms and the conjugation of high-frequency verbs; key features and patterns of the language; how to apply these, for instance, to build sentences; and how these differ from or are similar to English.

The starred (\*) content above will not be applicable to ancient languages.

# National Curriculum Expectations

## Year 5

### Music - Key stage 2

- play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression
- improvise and compose music for a range of purposes using the inter-related dimensions of music
- listen with attention to detail and recall sounds with increasing aural memory
- use and understand staff and other musical notations
- appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians
- develop an understanding of the history of music.

### Physical Education (PE) - Key stage 2

- use running, jumping, throwing and catching in isolation and in combination
- play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending
- develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics]
- perform dances using a range of movement patterns
- take part in outdoor and adventurous activity challenges both individually and within a team
- compare their performances with previous ones and demonstrate improvement to achieve their personal best.

### Swimming - Key stage 2

- swim competently, confidently and proficiently over a distance of at least 25 metres
- use a range of strokes effectively [for example, front crawl, backstroke and breaststroke]
- perform safe self-rescue in different water-based situations.