

Years 3 and 4 programme of study

Reading – word reading

Statutory requirements

Pupils should be taught to:

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.

Notes and guidance (non-statutory)

At this stage, teaching comprehension should be taking precedence over teaching word reading directly. Any focus on word reading should support the development of vocabulary.

When pupils are taught to read longer words, they should be supported to test out different pronunciations. They will attempt to match what they decode to words they may have already heard but may not have seen in print [for example, in reading 'technical', the pronunciation /tɛtʃnɪkəl/ ('tetchnical') might not sound familiar, but /teknɪkəl/ ('teknical') should].

Reading – comprehension

Statutory requirements

Pupils should be taught to:

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

Statutory requirements

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.

Notes and guidance (non-statutory)

The focus should continue to be on pupils' comprehension as a primary element in reading. The knowledge and skills that pupils need in order to comprehend are very similar at different ages. This is why the programmes of study for comprehension in years 3 and 4 and years 5 and 6 are similar: the complexity of the writing increases the level of challenge.

Pupils should be taught to recognise themes in what they read, such as the triumph of good over evil or the use of magical devices in fairy stories and folk tales.

They should also learn the conventions of different types of writing (for example, the greeting in letters, a diary written in the first person or the use of presentational devices such as numbering and headings in instructions).

Pupils should be taught to use the skills they have learnt earlier and continue to apply these skills to read for different reasons, including for pleasure, or to find out information and the meaning of new words.

Notes and guidance (non-statutory)

Pupils should continue to have opportunities to listen frequently to stories, poems, non-fiction and other writing, including whole books and not just extracts, so that they build on what was taught previously. In this way, they also meet books and authors that they might not choose themselves. Pupils should also have opportunities to exercise choice in selecting books and be taught how to do so, with teachers making use of any library services and expertise to support this.

Reading, re-reading, and rehearsing poems and plays for presentation and performance give pupils opportunities to discuss language, including vocabulary, extending their interest in the meaning and origin of words. Pupils should be encouraged to use drama approaches to understand how to perform plays and poems to support their understanding of the meaning. These activities also provide them with an incentive to find out what expression is required, so feeding into comprehension.

In using non-fiction, pupils should know what information they need to look for before they begin and be clear about the task. They should be shown how to use contents pages and indexes to locate information.

Pupils should have guidance about the kinds of explanations and questions that are expected from them. They should help to develop, agree on, and evaluate rules for effective discussion. The expectation should be that all pupils take part.

Writing – transcription**Statutory requirements****Spelling (see [English Appendix 1](#))**

Pupils should be taught to:

use further prefixes and suffixes and understand how to add them (English Appendix 1)

spell further homophones

spell words that are often misspelt (English Appendix 1)

place the possessive apostrophe accurately in words with regular plurals [for example, girls', boys'] and in words with irregular plurals [for example, children's]

use the first two or three letters of a word to check its spelling in a dictionary

write from memory simple sentences, dictated by the teacher, that include words and punctuation taught so far.

Notes and guidance (non-statutory)

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

Notes and guidance (non-statutory)

them.

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

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

Statutory requirements**Handwriting**

Pupils should be taught to:

use the diagonal and horizontal strokes that are needed to join letters and understand which letters, when adjacent to one another, are best left unjoined

increase the legibility, consistency and quality of their handwriting [for example, by ensuring that the downstrokes of letters are parallel and equidistant; that lines of writing are spaced sufficiently so that the ascenders and descenders of letters do not touch].

Notes and guidance (non-statutory)

Pupils should be using joined handwriting throughout their independent writing.

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

Writing – composition

Statutory requirements

Pupils should be taught to:

plan their writing by:

- discussing writing similar to that which they are planning to write in order to understand and learn from its structure, vocabulary and grammar

- discussing and recording ideas

draft and write by:

- composing and rehearsing sentences orally (including dialogue), progressively building a varied and rich vocabulary and an increasing range of sentence structures ([English Appendix 2](#))

- organising paragraphs around a theme

- in narratives, creating settings, characters and plot

- in non-narrative material, using simple organisational devices [for example, headings and sub-headings]

evaluate and edit by:

- assessing the effectiveness of their own and others' writing and suggesting improvements

- proposing changes to grammar and vocabulary to improve consistency, including the accurate use of pronouns in sentences

proof-read for spelling and punctuation errors

read aloud their own writing, to a group or the whole class, using appropriate intonation and controlling the tone and volume so that the meaning is clear.

Notes and guidance (non-statutory)

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

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

Writing – vocabulary, grammar and punctuation

Statutory requirements

Pupils should be taught to:

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

- extending the range of sentences with more than one clause by using a wider range of conjunctions, including when, if, because, although
- using the present perfect form of verbs in contrast to the past tense
- choosing nouns or pronouns appropriately for clarity and cohesion and to avoid repetition
- using conjunctions, adverbs and prepositions to express time and cause
- using fronted adverbials
- learning the grammar for years 3 and 4 in English Appendix 2

indicate grammatical and other features by:

- using commas after fronted adverbials
- indicating possession by using the possessive apostrophe with plural nouns
- using and punctuating direct speech

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

Notes and guidance (non-statutory)

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

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

Spelling – work for years 3 and 4

Revision of work from years 1 and 2

Pay special attention to the rules for adding suffixes.

New work for years 3 and 4

Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
Adding suffixes beginning with vowel letters to words of more than one syllable	If the last syllable of a word is stressed and ends with one consonant letter which has just one vowel letter before it, the final consonant letter is doubled before any ending beginning with a vowel letter is added. The consonant letter is not doubled if the syllable is unstressed.	forgetting, forgotten, beginning, beginner, prefer, preferred gardening, gardener, limiting, limited, limitation
The /ɪ/ sound spelt y elsewhere than at the end of words	These words should be learnt as needed.	myth, gym, Egypt, pyramid, mystery
The /ʌ/ sound spelt ou	These words should be learnt as needed.	young, touch, double, trouble, country
More prefixes	<p>Most prefixes are added to the beginning of root words without any changes in spelling, but see in- below.</p> <p>Like un-, the prefixes dis- and mis- have negative meanings.</p> <p>The prefix in- can mean both 'not' and 'in'/'into'. In the words given here it means 'not'.</p>	<p>dis-: disappoint, disagree, disobey</p> <p>mis-: misbehave, mislead, misspell (mis + spell)</p> <p>in-: inactive, incorrect</p>

Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
	<p>Before a root word starting with l, in- becomes il-.</p> <p>Before a root word starting with m or p, in- becomes im-.</p> <p>Before a root word starting with r, in- becomes ir-.</p> <p>re- means 'again' or 'back'.</p> <p>sub- means 'under'.</p> <p>inter- means 'between' or 'among'.</p> <p>super- means 'above'.</p> <p>anti- means 'against'.</p> <p>auto- means 'self' or 'own'.</p>	<p>illegal, illegible</p> <p>immature, immortal, impossible, impatient, imperfect</p> <p>irregular, irrelevant, irresponsible</p> <p>re-: redo, refresh, return, reappear, redecorate</p> <p>sub-: subdivide, subheading, submarine, submerge</p> <p>inter-: interact, intercity, international, interrelated (inter + related)</p> <p>super-: supermarket, superman, superstar</p> <p>anti-: antiseptic, anti-clockwise, antisocial</p> <p>auto-: autobiography, autograph</p>
The suffix -ation	The suffix -ation is added to verbs to form nouns. The rules already learnt still apply.	information, adoration, sensation, preparation, admiration
The suffix -ly	<p>The suffix -ly is added to an adjective to form an adverb. The rules already learnt still apply.</p> <p>The suffix -ly starts with a consonant letter, so it is added straight on to most root words.</p>	sadly, completely, usually (usual + ly), finally (final + ly), comically (comical + ly)

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

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

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

Word list – years 3 and 4

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

Notes and guidance (non-statutory)

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

Examples:

business: once *busy* is learnt, with due attention to the unusual spelling of the /i/ sound as 'u', *business* can then be spelt as **busy + ness**, with the **y** of **busy** changed to **i** according to the rule.

disappear: the root word *appear* contains sounds which can be spelt in more than one way so it needs to be learnt, but the prefix **dis-** is then simply added to **appear**.

Understanding the relationships between words can also help with spelling. Examples:

bicycle is *cycle* (from the Greek for *wheel*) with **bi-** (meaning 'two') before it.

medicine is related to *medical* so the /s/ sound is spelt as **c**.

opposite is related to *oppose*, so the schwa sound in *opposite* is spelt as **o**.

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

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

Notes and guidance (non-statutory)

Terminology for pupils	determiner pronoun, possessive pronoun adverbial
-------------------------------	--

Year 4 programme of study

Number – number and place value

Statutory requirements

Pupils should be taught to

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.

Notes and guidance (non-statutory)

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

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

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

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

Number – addition and subtraction

Statutory requirements

Pupils should be taught to:

add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate

estimate and use inverse operations to check answers to a calculation

solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

Notes and guidance (non-statutory)

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

Number – multiplication and division

Statutory requirements

Pupils should be taught to:

recall multiplication and division facts for multiplication tables up to 12×12

use place value, known and derived facts to multiply and divide mentally, including:
multiplying by 0 and 1; dividing by 1; multiplying together three numbers

recognise and use factor pairs and commutativity in mental calculations

multiply two-digit and three-digit numbers by a one-digit number using formal written layout

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

Notes and guidance (non-statutory)

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

Pupils practise mental methods and extend this to three-digit numbers to derive facts,

Notes and guidance (non-statutory)

(for example $600 \div 3 = 200$ can be derived from $2 \times 3 = 6$).

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

Pupils write statements about the equality of expressions (for example, use the distributive law $39 \times 7 = 30 \times 7 + 9 \times 7$ and associative law $(2 \times 3) \times 4 = 2 \times (3 \times 4)$).

They combine their knowledge of number facts and rules of arithmetic to solve mental and written calculations for example, $2 \times 6 \times 5 = 10 \times 6 = 60$.

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

Number – fractions (including decimals)**Statutory requirements**

Pupils should be taught to:

recognise and show, using diagrams, families of common equivalent fractions

count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.

solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number

add and subtract fractions with the same denominator

recognise and write decimal equivalents of any number of tenths or hundredths

recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$

find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths

round decimals with one decimal place to the nearest whole number

compare numbers with the same number of decimal places up to two decimal places

solve simple measure and money problems involving fractions and decimals to two decimal places.

Notes and guidance (non-statutory)

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

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

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

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

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

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

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

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

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

Measurement**Statutory requirements**

Pupils should be taught to:

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

Statutory requirements

estimate, compare and calculate different measures, including money in pounds and pence

read, write and convert time between analogue and digital 12- and 24-hour clocks

solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.

Notes and guidance (non-statutory)

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

They use multiplication to convert from larger to smaller units.

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

They relate area to arrays and multiplication.

Geometry – properties of shapes**Statutory requirements**

Pupils should be taught to:

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.

Notes and guidance (non-statutory)

Pupils continue to classify shapes using geometrical properties, extending to classifying different triangles (for example, isosceles, equilateral, scalene) and quadrilaterals (for example, parallelogram, rhombus, trapezium).

Pupils compare and order angles in preparation for using a protractor and compare lengths and angles to decide if a polygon is regular or irregular.

Notes and guidance (non-statutory)

Pupils draw symmetric patterns using a variety of media to become familiar with different orientations of lines of symmetry; and recognise line symmetry in a variety of diagrams, including where the line of symmetry does not dissect the original shape.

Geometry – position and direction**Statutory requirements**

Pupils should be taught to:

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.

Notes and guidance (non-statutory)

Pupils draw a pair of axes in one quadrant, with equal scales and integer labels. They read, write and use pairs of coordinates, for example (2, 5), including using coordinate-plotting ICT tools.

Statistics**Statutory requirements**

Pupils should be taught to:

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.

Notes and guidance (non-statutory)

Pupils understand and use a greater range of scales in their representations.

Pupils begin to relate the graphical representation of data to recording change over time.

Year 4 programme of study

Living things and their habitats

Statutory requirements

Pupils should be taught to:

recognise that living things can be grouped in a variety of ways

explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment

recognise that environments can change and that this can sometimes pose dangers to living things.

Notes and guidance (non-statutory)

Pupils should use the local environment throughout the year to raise and answer questions that help them to identify and study plants and animals in their habitat. They should identify how the habitat changes throughout the year. Pupils should explore possible ways of grouping a wide selection of living things that include animals and flowering plants and non-flowering plants. Pupils could begin to put vertebrate animals into groups such as fish, amphibians, reptiles, birds, and mammals; and invertebrates into snails and slugs, worms, spiders, and insects.

Note: Plants can be grouped into categories such as flowering plants (including grasses) and non-flowering plants, such as ferns and mosses.

Pupils should explore examples of human impact (both positive and negative) on environments, for example, the positive effects of nature reserves, ecologically planned parks, or garden ponds, and the negative effects of population and development, litter or deforestation.

Pupils might work scientifically by: using and making simple guides or keys to explore and identify local plants and animals; making a guide to local living things; raising and answering questions based on their observations of animals and what they have found out about other animals that they have researched.

Animals, including humans

Statutory requirements

Pupils should be taught to:

describe the simple functions of the basic parts of the digestive system in humans

identify the different types of teeth in humans and their simple functions

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

Notes and guidance (non-statutory)

Pupils should be introduced to the main body parts associated with the digestive system, for example, mouth, tongue, teeth, oesophagus, stomach and small and large intestine and explore questions that help them to understand their special functions.

Pupils might work scientifically by: comparing the teeth of carnivores and herbivores, and suggesting reasons for differences; finding out what damages teeth and how to look after them. They might draw and discuss their ideas about the digestive system and compare them with models or images.

States of matter

Statutory requirements

Pupils should be taught to:

compare and group materials together, according to whether they are solids, liquids or gases

observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)

identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

Notes and guidance (non-statutory)

Pupils should explore a variety of everyday materials and develop simple descriptions of the states of matter (solids hold their shape; liquids form a pool not a pile; gases escape from an unsealed container). Pupils should observe water as a solid, a liquid and a gas

Notes and guidance (non-statutory)

and should note the changes to water when it is heated or cooled.

Note: Teachers should avoid using materials where heating is associated with chemical change, for example, through baking or burning.

Pupils might work scientifically by: grouping and classifying a variety of different materials; exploring the effect of temperature on substances such as chocolate, butter, cream (for example, to make food such as chocolate crispy cakes and ice-cream for a party). They could research the temperature at which materials change state, for example, when iron melts or when oxygen condenses into a liquid. They might observe and record evaporation over a period of time, for example, a puddle in the playground or washing on a line, and investigate the effect of temperature on washing drying or snowmen melting.

Sound**Statutory requirements**

Pupils should be taught to:

identify how sounds are made, associating some of them with something vibrating

recognise that vibrations from sounds travel through a medium to the ear

find patterns between the pitch of a sound and features of the object that produced it

find patterns between the volume of a sound and the strength of the vibrations that produced it

recognise that sounds get fainter as the distance from the sound source increases.

Notes and guidance (non-statutory)

Pupils should explore and identify the way sound is made through vibration in a range of different musical instruments from around the world; and find out how the pitch and volume of sounds can be changed in a variety of ways.

Pupils might work scientifically by: finding patterns in the sounds that are made by different objects such as saucepan lids of different sizes or elastic bands of different thicknesses. They might make earmuffs from a variety of different materials to investigate which provides the best insulation against sound. They could make and play their own instruments by using what they have found out about pitch and volume.

Electricity

Statutory requirements

Pupils should be taught to:

identify common appliances that run on electricity

construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers

identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery

recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit

recognise some common conductors and insulators, and associate metals with being good conductors.

Notes and guidance (non-statutory)

Pupils should construct simple series circuits, trying different components, for example, bulbs, buzzers and motors, and including switches, and use their circuits to create simple devices. Pupils should draw the circuit as a pictorial representation, not necessarily using conventional circuit symbols at this stage; these will be introduced in year 6.

Note: Pupils might use the terms current and voltage, but these should not be introduced or defined formally at this stage. Pupils should be taught about precautions for working safely with electricity.

Pupils might work scientifically by: observing patterns, for example, that bulbs get brighter if more cells are added, that metals tend to be conductors of electricity, and that some materials can and some cannot be used to connect across a gap in a circuit.

Art and design

Purpose of study

Art, craft and design embody some of the highest forms of human creativity. A high-quality art and design education should engage, inspire and challenge pupils, equipping them with the knowledge and skills to experiment, invent and create their own works of art, craft and design. As pupils progress, they should be able to think critically and develop a more rigorous understanding of art and design. They should also know how art and design both reflect and shape our history, and contribute to the culture, creativity and wealth of our nation.

Aims

The national curriculum for art and design aims to ensure that all pupils:

- produce creative work, exploring their ideas and recording their experiences
- become proficient in drawing, painting, sculpture and other art, craft and design techniques
- evaluate and analyse creative works using the language of art, craft and design
- know about great artists, craft makers and designers, and understand the historical and cultural development of their art forms.

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Schools are not required by law to teach the example content in [square brackets].

Subject content

Key stage 2

Pupils should be taught to develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design.

Pupils should be taught:

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

Purpose of study

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Aims

The national curriculum for computing aims to ensure that all pupils:

can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation

can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems

can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems

are responsible, competent, confident and creative users of information and communication technology.

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Schools are not required by law to teach the example content in [square brackets].

Subject content

Key stage 2

Pupils should be taught to:

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 and technology

Purpose of study

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

Aims

The national curriculum for design and technology aims to ensure that all pupils:

develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world

build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users

critique, evaluate and test their ideas and products and the work of others

understand and apply the principles of nutrition and learn how to cook.

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Schools are not required by law to teach the example content in [square brackets].

Subject content

Key stage 2

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 [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].

When designing and making, pupils should be taught to:

Design

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

Make

select from and use a wider range of tools and equipment to perform practical tasks [for example, 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

Evaluate

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

Technical knowledge

apply their understanding of how to strengthen, stiffen and reinforce more complex structures

understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]

understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]

apply their understanding of computing to program, monitor and control their products.

Cooking and nutrition

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

Pupils should be taught to:

Key stage 2

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.

Geography

Purpose of study

A high-quality geography education should inspire in pupils a curiosity and fascination about the world and its people that will remain with them for the rest of their lives. Teaching should equip pupils with knowledge about diverse places, people, resources and natural and human environments, together with a deep understanding of the Earth's key physical and human processes. As pupils progress, their growing knowledge about the world should help them to deepen their understanding of the interaction between physical and human processes, and of the formation and use of landscapes and environments. Geographical knowledge, understanding and skills provide the frameworks and approaches that explain how the Earth's features at different scales are shaped, interconnected and change over time.

Aims

The national curriculum for geography aims to ensure that all pupils:

develop contextual knowledge of the location of globally significant places – both terrestrial and marine – including their defining physical and human characteristics and how these provide a geographical context for understanding the actions of processes

understand the processes that give rise to key physical and human geographical features of the world, how these are interdependent and how they bring about spatial variation and change over time

are competent in the geographical skills needed to:

collect, analyse and communicate with a range of data gathered through experiences of fieldwork that deepen their understanding of geographical processes

interpret a range of sources of geographical information, including maps, diagrams, globes, aerial photographs and Geographical Information Systems (GIS)

communicate geographical information in a variety of ways, including through maps, numerical and quantitative skills and writing at length.

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Schools are not required by law to teach the example content in [square brackets].

Subject content

Key stage 2

Pupils should extend their knowledge and understanding beyond the local area to include the United Kingdom and Europe, North and South America. This will include the location and characteristics of a range of the world's most significant human and physical features. They should develop their use of geographical knowledge, understanding and skills to enhance their locational and place knowledge.

Pupils should be taught to:

Locational knowledge

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

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

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)

Place knowledge

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

Human and physical geography

describe and understand key aspects of:

physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle

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

Geographical skills and fieldwork

use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied

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

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.

History

Purpose of study

A high-quality history education will help pupils gain a coherent knowledge and understanding of Britain's past and that of the wider world. It should inspire pupils' curiosity to know more about the past. Teaching should equip pupils to ask perceptive questions, think critically, weigh evidence, sift arguments, and develop perspective and judgement. History helps pupils to understand the complexity of people's lives, the process of change, the diversity of societies and relationships between different groups, as well as their own identity and the challenges of their time.

Aims

The national curriculum for history aims to ensure that all pupils:

know and understand the history of these islands as a coherent, chronological narrative, from the earliest times to the present day: how people's lives have shaped this nation and how Britain has influenced and been influenced by the wider world

know and understand significant aspects of the history of the wider world: the nature of ancient civilisations; the expansion and dissolution of empires; characteristic features of past non-European societies; achievements and follies of mankind

gain and deploy a historically grounded understanding of abstract terms such as 'empire', 'civilisation', 'parliament' and 'peasantry'

understand historical concepts such as continuity and change, cause and consequence, similarity, difference and significance, and use them to make connections, draw contrasts, analyse trends, frame historically-valid questions and create their own structured accounts, including written narratives and analyses

understand the methods of historical enquiry, including how evidence is used rigorously to make historical claims, and discern how and why contrasting arguments and interpretations of the past have been constructed

gain historical perspective by placing their growing knowledge into different contexts, understanding the connections between local, regional, national and international history; between cultural, economic, military, political, religious and social history; and between short- and long-term timescales.

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Schools are not required by law to teach the example content in [square brackets] or the content indicated as being ‘non-statutory’.

Subject content

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.

In planning to ensure the progression described above through teaching the British, local and world history outlined below, teachers should combine overview and depth studies to help pupils understand both the long arc of development and the complexity of specific aspects of the content.

Pupils should be taught about:

changes in Britain from the Stone Age to the Iron Age

Examples (non-statutory)

This could include:

late Neolithic hunter-gatherers and early farmers, for example, Skara Brae

Bronze Age religion, technology and travel, for example, Stonehenge

Iron Age hill forts: tribal kingdoms, farming, art and culture

the Roman Empire and its impact on Britain

Examples (non-statutory)

This could include:

Julius Caesar’s attempted invasion in 55-54 BC

Examples (non-statutory)

This could include:

the Roman Empire by AD 42 and the power of its army

successful invasion by Claudius and conquest, including Hadrian's Wall

British resistance, for example, Boudica

'Romanisation' of Britain: sites such as Caerwent and the impact of technology, culture and beliefs, including early Christianity

Britain's settlement by Anglo-Saxons and Scots

Examples (non-statutory)

This could include:

Roman withdrawal from Britain in c. AD 410 and the fall of the western Roman Empire

Scots invasions from Ireland to north Britain (now Scotland)

Anglo-Saxon invasions, settlements and kingdoms: place names and village life

Anglo-Saxon art and culture

Christian conversion – Canterbury, Iona and Lindisfarne

the Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor

Examples (non-statutory)

This could include:

Viking raids and invasion

resistance by Alfred the Great and Athelstan, first king of England

further Viking invasions and Danegeld

Anglo-Saxon laws and justice

Edward the Confessor and his death in 1066

a local history study

Examples (non-statutory)

a depth study linked to one of the British areas of study listed above

a study over time tracing how several aspects of national history are reflected in the

Examples (non-statutory)

locality (this can go beyond 1066)

a study of an aspect of history or a site dating from a period beyond 1066 that is significant in the locality.

a study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066

Examples (non-statutory)

the changing power of monarchs using case studies such as John, Anne and Victoria

changes in an aspect of social history, such as crime and punishment from the Anglo-Saxons to the present or leisure and entertainment in the 20th Century

the legacy of Greek or Roman culture (art, architecture or literature) on later periods in British history, including the present day

a significant turning point in British history, for example, the first railways or the Battle of Britain

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.

Languages

Purpose of study

Learning a foreign language is a liberation from insularity and provides an opening to other cultures. A high-quality languages education should foster pupils' curiosity and deepen their understanding of the world. The teaching should enable pupils to express their ideas and thoughts in another language and to understand and respond to its speakers, both in speech and in writing. It should also provide opportunities for them to communicate for practical purposes, learn new ways of thinking and read great literature in the original language. Language teaching should provide the foundation for learning further languages, equipping pupils to study and work in other countries.

Aims

The national curriculum for languages aims to ensure that all pupils:

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.

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Schools are not required by law to teach the example content in [square brackets].

Subject content

Key stage 2: Foreign language

Teaching may be of any modern or ancient foreign language and should focus on enabling pupils to make substantial progress in one language. The teaching should provide an appropriate balance of spoken and written language and should lay the foundations for further foreign language teaching at key stage 3. It should enable pupils to understand and communicate ideas, facts and feelings in speech and writing, focused on familiar and routine matters, using their knowledge of phonology, grammatical structures and vocabulary.

The focus of study in modern languages will be on practical communication. If an ancient language is chosen the focus will be to provide a linguistic foundation for reading comprehension and an appreciation of classical civilisation. Pupils studying ancient languages may take part in simple oral exchanges, while discussion of what they read will be conducted in English. A linguistic foundation in ancient languages may support the study of modern languages at key stage 3.

Pupils should be taught to:

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.

Music

Purpose of study

Music is a universal language that embodies one of the highest forms of creativity. A high-quality music education should engage and inspire pupils to develop a love of music and their talent as musicians, and so increase their self-confidence, creativity and sense of achievement. As pupils progress, they should develop a critical engagement with music, allowing them to compose, and to listen with discrimination to the best in the musical canon.

Aims

The national curriculum for music aims to ensure that all pupils:

perform, listen to, review and evaluate music across a range of historical periods, genres, styles and traditions, including the works of the great composers and musicians

learn to sing and to use their voices, to create and compose music on their own and with others, have the opportunity to learn a musical instrument, use technology appropriately and have the opportunity to progress to the next level of musical excellence

understand and explore how music is created, produced and communicated, including through the inter-related dimensions: pitch, duration, dynamics, tempo, timbre, texture, structure and appropriate musical notations.

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Subject content

Key stage 2

Pupils should be taught to sing and play musically with increasing confidence and control. They should develop an understanding of musical composition, organising and manipulating ideas within musical structures and reproducing sounds from aural memory.

Pupils should be taught to:

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

Purpose of study

A high-quality physical education curriculum inspires all pupils to succeed and excel in competitive sport and other physically-demanding activities. It should provide opportunities for pupils to become physically confident in a way which supports their health and fitness. Opportunities to compete in sport and other activities build character and help to embed values such as fairness and respect.

Aims

The national curriculum for physical education aims to ensure that all pupils:

- develop competence to excel in a broad range of physical activities
- are physically active for sustained periods of time
- engage in competitive sports and activities
- lead healthy, active lives.

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Schools are not required by law to teach the example content in [square brackets].

Subject content

Key stage 2

Pupils should continue to apply and develop a broader range of skills, learning how to use them in different ways and to link them to make actions and sequences of movement. They should enjoy communicating, collaborating and competing with each other. They should develop an understanding of how to improve in different physical activities and sports and learn how to evaluate and recognise their own success.

Pupils should be taught to:

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 and water safety

All schools must provide swimming instruction either in key stage 1 or key stage 2.

In particular, pupils should be taught to:

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.