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 /tɛknɪkəl/
('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	Most prefixes are added to the beginning of root words without any changes in spelling, but see **in–** below.	
	Like **un–**, the prefixes **dis–** and **mis–** have negative meanings.	**dis–**: disappoint, disagree, disobey **mis–**: misbehave, mislead, misspell (mis + spell)
	The prefix **in–** can mean both 'not' and 'in'/'into'. In the words given here it means 'not'.	**in–**: inactive, incorrect

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

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

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

Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
Possessive apostrophe with plural words	The apostrophe is placed after the plural form of the word; **–s** is not added if the plural already ends in **–s**, but *is* added if the plural does not end in **–s** (i.e. is an irregular plural – e.g. *children's*).	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)

actual(ly)

address

answer

appear

arrive

believe

bicycle

breath

breathe

build

busy/business

calendar

caught

centre

century

certain

circle

complete

consider

continue

decide

describe

different

difficult

disappear

early

earth

eight/eighth

enough

exercise

experience

experiment

extreme

famous

favourite

February

forward(s)

fruit

grammar

group

guard

guide

heard

heart

height

history

imagine

increase

important

interest

island

knowledge

learn

length

library

material

medicine

mention

minute

natural

naughty

notice

occasion(ally)

often

opposite

ordinary

particular

peculiar

perhaps

popular

position

possess(ion)

possible

potatoes

pressure

probably

promise

purpose

quarter

question

recent

regular

reign

remember

sentence

separate

special

straight

strange

strength

suppose

surprise

therefore

though/although

thought

through

various

weight

woman/women

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

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

Notes and guidance (non-statutory)	
Terminology for pupils	preposition conjunction
	word family, prefix
	clause, subordinate clause
	direct speech
	consonant, consonant letter vowel, vowel letter
	inverted commas (or 'speech marks')

Lower key stage 2 – years 3 and 4

The principal focus of mathematics teaching in lower key stage 2 is to ensure that pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value. This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers.

At this stage, pupils should develop their ability to solve a range of problems, including with simple fractions and decimal place value. Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them. It should ensure that they can use measuring instruments with accuracy and make connections between measure and number.

By the end of year 4, pupils should have memorised their multiplication tables up to and including the 12 multiplication table and show precision and fluency in their work.

Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.

Year 3 programme of study

Number – number and place value

Statutory requirements

Pupils should be taught to:

count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number

recognise the place value of each digit in a three-digit number (hundreds, tens, ones)

compare and order numbers up to 1000

identify, represent and estimate numbers using different representations

read and write numbers up to 1000 in numerals and in words

solve number problems and practical problems involving these ideas.

Notes and guidance (non-statutory)

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

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

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

Number – addition and subtraction

Statutory requirements

Pupils should be taught to:

add and subtract numbers mentally, including:

> a three-digit number and ones
>
> a three-digit number and tens
>
> a three-digit number and hundreds

add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction

estimate the answer to a calculation and use inverse operations to check answers

solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

Notes and guidance (non-statutory)

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

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

Number – multiplication and division

Statutory requirements

Pupils should be taught to:

recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables

write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods

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

Notes and guidance (non-statutory)

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

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

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

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

Number – fractions

Statutory requirements

Pupils should be taught to:

count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10

recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators

recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators

recognise and show, using diagrams, equivalent fractions with small denominators

add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$]

compare and order unit fractions, and fractions with the same denominators

solve problems that involve all of the above.

> **Notes and guidance (non-statutory)**
>
> Pupils connect tenths to place value, decimal measures and to division by 10.
>
> They begin to understand unit and non-unit fractions as numbers on the number line, and deduce relations between them, such as size and equivalence. They should go beyond the [0, 1] interval, including relating this to measure.
>
> Pupils understand the relation between unit fractions as operators (fractions of), and division by integers.
>
> They continue to recognise fractions in the context of parts of a whole, numbers, measurements, a shape, and unit fractions as a division of a quantity.
>
> Pupils practise adding and subtracting fractions with the same denominator through a variety of increasingly complex problems to improve fluency.

Measurement

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

Notes and guidance (non-statutory)

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

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

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

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

Geometry – properties of shapes

Statutory requirements

Pupils should be taught to:

draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them

recognise angles as a property of shape or a description of a turn

identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle

identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

Notes and guidance (non-statutory)

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

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

Statistics

Statutory requirements

Pupils should be taught to:

interpret and present data using bar charts, pictograms and tables

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

Notes and guidance (non-statutory)

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

They continue to interpret data presented in many contexts.

Lower key stage 2 – years 3 and 4

The principal focus of science teaching in lower key stage 2 is to enable pupils to broaden their scientific view of the world around them. They should do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions. They should ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair tests and finding things out using secondary sources of information. They should draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out.

'Working scientifically' is described separately at the beginning of the programme of study, but must **always** be taught through and clearly related to substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content.

Pupils should read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge.

Lower key stage 2 programme of study

Working scientifically

Statutory requirements

During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

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.

Notes and guidance (non-statutory)

Pupils in years 3 and 4 should be given a range of scientific experiences to enable them to raise their own questions about the world around them. They should start to make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions; recognise when a simple fair test is necessary and help to decide how to set it up; talk about criteria for grouping, sorting and classifying; and use simple keys. They should begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them. They should help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used.

Notes and guidance (non-statutory)

They should learn how to use new equipment, such as data loggers, appropriately. They should collect data from their own observations and measurements, using notes, simple tables and standard units, and help to make decisions about how to record and analyse this data. With help, pupils should look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions. With support, they should identify new questions arising from the data, making predictions for new values within or beyond the data they have collected and finding ways of improving what they have already done. They should also recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations. Pupils should use relevant scientific language to discuss their ideas and communicate their findings in ways that are appropriate for different audiences.

These opportunities for working scientifically should be provided across years 3 and 4 so that the expectations in the programme of study can be met by the end of year 4. Pupils are not expected to cover each aspect for every area of study.

Year 3 programme of study

Plants

Statutory requirements

Pupils should be taught to:

identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers

explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant

investigate the way in which water is transported within plants

explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

Notes and guidance (non-statutory)

Pupils should be introduced to the relationship between structure and function: the idea that every part has a job to do. They should explore questions that focus on the role of the roots and stem in nutrition and support, leaves for nutrition and flowers for reproduction.

Note: Pupils can be introduced to the idea that plants can make their own food, but at this stage they do not need to understand how this happens.

Pupils might work scientifically by: comparing the effect of different factors on plant growth, for example, the amount of light, the amount of fertiliser; discovering how seeds are formed by observing the different stages of plant life cycles over a period of time; looking for patterns in the structure of fruits that relate to how the seeds are dispersed. They might observe how water is transported in plants, for example, by putting cut, white carnations into coloured water and observing how water travels up the stem to the flowers.

Animals, including humans

Statutory requirements

Pupils should be taught to:

identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat

identify that humans and some other animals have skeletons and muscles for support, protection and movement.

Notes and guidance (non-statutory)

Pupils should continue to learn about the importance of nutrition and should be introduced to the main body parts associated with the skeleton and muscles, finding out how different parts of the body have special functions.

Pupils might work scientifically by: identifying and grouping animals with and without skeletons and observing and comparing their movement; exploring ideas about what would happen if humans did not have skeletons. They might compare and contrast the diets of different animals (including their pets) and decide ways of grouping them according to what they eat. They might research different food groups and how they keep us healthy and design meals based on what they find out.

Rocks

Statutory requirements

Pupils should be taught to:

compare and group together different kinds of rocks on the basis of their appearance and simple physical properties

describe in simple terms how fossils are formed when things that have lived are trapped within rock

recognise that soils are made from rocks and organic matter.

Notes and guidance (non-statutory)

Linked with work in geography, pupils should explore different kinds of rocks and soils, including those in the local environment.

Notes and guidance (non-statutory)

Pupils might work scientifically by: observing rocks, including those used in buildings and gravestones, and exploring how and why they might have changed over time; using a hand lens or microscope to help them to identify and classify rocks according to whether they have grains or crystals, and whether they have fossils in them. Pupils might research and discuss the different kinds of living things whose fossils are found in sedimentary rock and explore how fossils are formed. Pupils could explore different soils and identify similarities and differences between them and investigate what happens when rocks are rubbed together or what changes occur when they are in water. They can raise and answer questions about the way soils are formed.

Light

Statutory requirements

Pupils should be taught to:

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

notice that light is reflected from surfaces

recognise that light from the sun can be dangerous and that there are ways to protect their eyes

recognise that shadows are formed when the light from a light source is blocked by a solid object

find patterns in the way that the size of shadows change.

Notes and guidance (non-statutory)

Pupils should explore what happens when light reflects off a mirror or other reflective surfaces, including playing mirror games to help them to answer questions about how light behaves. They should think about why it is important to protect their eyes from bright lights. They should look for, and measure, shadows, and find out how they are formed and what might cause the shadows to change.

Note: Pupils should be warned that it is not safe to look directly at the Sun, even when wearing dark glasses.

Pupils might work scientifically by: looking for patterns in what happens to shadows when the light source moves or the distance between the light source and the object changes.

Forces and magnets

Statutory requirements

Pupils should be taught to:

compare how things move on different surfaces

notice that some forces need contact between two objects, but magnetic forces can act at a distance

observe how magnets attract or repel each other and attract some materials and not others

compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials

describe magnets as having two poles

predict whether two magnets will attract or repel each other, depending on which poles are facing.

Notes and guidance (non-statutory)

Pupils should observe that magnetic forces can act without direct contact, unlike most forces, where direct contact is necessary (for example, opening a door, pushing a swing). They should explore the behaviour and everyday uses of different magnets (for example, bar, ring, button and horseshoe).

Pupils might work scientifically by: comparing how different things move and grouping them; raising questions and carrying out tests to find out how far things move on different surfaces and gathering and recording data to find answers their questions; exploring the strengths of different magnets and finding a fair way to compare them; sorting materials into those that are magnetic and those that are not; looking for patterns in the way that magnets behave in relation to each other and what might affect this, for example, the strength of the magnet or which pole faces another; identifying how these properties make magnets useful in everyday items and suggesting creative uses for different magnets.

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

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.