

Key Learning in Key Stage 1

Mathematics in Year 1

As children begin their compulsory schooling in Year 1, schools will naturally work to build on the learning that takes place in the Reception year. Here are some of the main things your child is likely to be taught during their time in Year 1.

Number and Place Value

Place value is central to mathematics. Recognising that the digit '5' in the number 54 has a different value from the number 5 or the '5' in 504 is an important step in mathematical understanding.

- Count, both forwards and backwards, from any number, including past 100
- Read and write numbers up to 100 as digits
- Count in 2s, 5s and 10s
- Find 'one more' or 'one less' than a number
- Use mathematical language such as 'more', 'less', 'most', 'least' and 'equal' Calculations
- Use the +, – and = symbols to write and understand simple number calculations
- Add and subtract one- and two-digit numbers, up to 20
- Solve missing number problems, such as $10 - ? = 6$
- Begin to use simple multiplication by organising and counting objects Fractions
- Understand $\frac{1}{4}$ and $\frac{1}{2}$ to explain as parts of an object or number of objects
- Use practical apparatus to explore different lengths, weights and volumes
- Use language such as 'heavier', 'shorter' and 'empty' to compare things they have measured
- Recognise the different coins and notes of British currency
- Use language of time, such as 'yesterday', 'before', days of the week and months of the year • Tell the time to the hour and half-hour, including drawing clock faces Shape
- Recognise and name some common 2-d shapes, such as squares, rectangles and triangles
- Recognise and name some common 3-d shapes, such as cubes, cuboids and spheres
- Describe movements, including quarter turns 5

Parent Tip There are plenty of opportunities for maths practice at home, from counting objects to simple games, such as dominoes and Snakes & Ladders. You can also begin to explore using money and clocks both in play at home and when out and about.

English in Year 1

During the early years of compulsory schooling, much of the focus is to develop confident readers, mainly using the phonics approach. Many schools will follow a programme of phonics teaching, so it is well worth finding out from your child's school if they have any parent support materials.

Phonics is the relationship between printed letters and the sounds they make. Children will first learn the most common letter sounds, and then look at more difficult patterns such as recognising that 'ow' sounds different in 'cow' than in 'low', or that both 'ai' and 'ay' make the same sound in different words.

Speaking and Listening

The Spoken Language objectives are set out for the whole of primary school, and teachers will cover many of them every year as children's spoken language skills develop. In Year 1, some focuses may include:

- Listen and respond to adults and other children
- Ask questions to extend their understanding
- Learn new vocabulary related to topics or daily life

Reading Skills

- Learn the 40+ main speech sounds in English and the letters that represent them
- Blend sounds together to form words
- Read aloud when reading books that contain familiar letter sound patterns
- Listen to, and talk about a range of stories, poems and non-fiction texts
- Learn about popular fairy tales and folk stories, and retell the stories
- Join in with repeated phrases in familiar books
- Make predictions about what might happen next in a book
- Explain clearly what has happened in a book they've read or listened to

Writing Skills

- Hold a pen or pencil in the correct and comfortable way
- Name the letters of the alphabet in order
- Write lower-case letters starting and ending in the right place
- Write capital letters, and the digits 0 to 9
- Spell simple words containing the main sounds they've learned in reading
- Spell the days of the week
- Learn to write words with common endings, such as -ed, -ing, -er and -est
- Plan out sentences aloud before writing them
- Write simple sentences, and those using joining words such as 'and'
- Begin to use full stops and capital letters for sentences
- Combine some sentences to make short descriptions or stories

Parent Tip Many schools will offer books to read at home; these will range from a mix of books which your child can read to you, and those which are more complex that they can listen to you read to them – both are important skills. Children can also join the local library service and choose books of their own.

Science in Year 1

In the first years of schooling, much of the science curriculum is based around real-life experiences for children. This includes everyday plants and animals, as well as finding out about different materials and the four seasons. There are likely to be lots of opportunities for exploring scientific ideas both in the classroom and the local surroundings.

Scientific Investigation

Children are encouraged to carry out their own observations and experiments to further their scientific understanding. In Year 1 this may include learning to:

- Ask scientific questions
- Carry out simple tests, and make observations
- Collect information to answer questions
- Group together objects according to their properties or behaviours Plants and Animals
- Name a selection of common plants, including deciduous and evergreen trees
- Name the main parts of plants and trees, such as roots, stems, trunks and leaves
- Name a variety of common animals, including mammals, fish, birds, reptiles and amphibians
- Name some common animals which are carnivores, herbivores and omnivores
- Name the main parts of the human body, including those related to the five senses

Herbivores: animals which feed only on plants, e.g. rabbits

Carnivores: animals which feed on other animals, e.g. eagles

Omnivores: animals which eat both plants and animals, e.g. humans

Deciduous trees are those which lose their leaves in autumn, whereas evergreen trees – as the name implies – are those which retain their green colour all year round.

Everyday Materials

- Recognise that objects are made of materials
- Name some everyday materials such as wood, metal, glass and plastic
- Describe some of the properties of materials, e.g. that wood is hard
- Group together items based on the materials they're made from, or their properties, for example by grouping heavy objects or shiny objects

Seasonal Change

- Observe changes across the four seasons
- Observe and describe how the day and weather changes with the seasons

Parent Tip There are always plenty of ways in which families can support children at home with science. There may be a park or gardens near you which you can visit over the year and see how the flora changes with the seasons. You may also be able to visit a farm or nature park which provides plenty of opportunity for discussing the wide variety of the animal kingdom.

Mathematics in Year 2

During Key Stage 1, there is a big focus on developing basic number skills. That means securing a good understanding of place value, and recognising number bonds to 20. Practising these skills frequently will help children's mathematical thinking throughout school.

Number bonds are essential to the understanding of maths. Children in Year 2 learn their number bonds to 20, that is being able to quickly recall the total of any two numbers up to 20, e.g. $5 + 9 = 14$, rather than having to count on to find the answer.

At the end of Year 2, all children will sit the National Curriculum Tests for Key Stage 1. This will include a short arithmetic test of 15 questions, and a second paper of broader mathematics which will last around 35 minutes.

Number and Place Value

- Recognise place value in two-digit numbers, e.g. knowing that the 1 in 17 represents 10
- Read and write numbers up to 100 as words
- Count in 2s, 3s and 5s
- Compare and order numbers up to 100
- Use the $<$ and $>$ symbols to represent the relative size of numbers

Calculations

- Recall number bonds up to 20 fluently
- Add and subtract numbers mentally and using objects, including two-digit numbers
- Show that adding two numbers can be done in any order, but subtracting cannot
- Recognise that addition and subtraction are inverse operations
- Learn the multiplication and division facts for the 2x, 5x and 10x tables
- Show that multiplying two numbers can be done in any order, but dividing cannot
- Solve problems using the \times and \div symbols

Fractions

- Find $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of an object or set of objects

- Find the answer to simple fraction problems, such as finding $\frac{1}{2}$ of 6 Measurements
- Use standard units to measure length (centimetres and metres), mass (grams and kilograms), temperature (degrees Celsius) and capacity (millilitres and litres)
- Use the £ and p symbols for money amounts
- Combine numbers of coins to make a given value, for example to make 62 pence
- Tell the time to the nearest five minutes on an analogue clock
- Know the number of minutes in an hour and hours in a day

Parent Tip Parents can always take a lead role in practical maths. Encouraging your child to help with the purchasing of small items at the newsagent, or measuring themselves and others, is a great way to start exploring number relationships.

Shape

- Identify the number of sides and a line of symmetry on 2-d shapes
- Identify the number of faces, edges and vertices on 3-d shapes
- Use mathematical language to describe position and direction, including rotations and turns

Graphs and Data

- Construct and understand simple graphs such as bar charts and pictograms

English in Year 2

As children move through Key Stage 1, the new curriculum intends that almost all children will secure the basic skills of decoding so that they can become fluent readers. As their reading confidence grows they can begin to write their own ideas down.

Decoding is the ability to read words aloud by identifying the letter patterns and matching them to sounds. Once children are able to 'decode' the writing, they can then start to make sense of the words and sentences in context. Watch out for hard-to-decode words such as 'one' and 'the'. These just have to be learned by heart.

At the end of Year 2, all children will sit the National Curriculum Tests for Key Stage 1. These will include two short reading tests, a grammar and punctuation test, and a spelling test of ten words.

Speaking and Listening

The Spoken Language objectives are set out for the whole of primary school, and teachers will cover many of them every year as children's spoken language skills develop. In Year 2 some focuses may include:

- Articulate and justify answers and opinions
- Give well-structured explanations and narratives, for example in show-and-tell activities

Reading Skills

- Read words aloud confidently, without obvious blending or rehearsal

- Learn letter patterns so that decoding becomes fluent and secure by the end of Year 2
- Blend letter sounds, including alternative patterns, e.g. recognising 'ue' as the 'oo' sound
- Read aloud words which contain more than one syllable
- Recognise common suffixes, such as –ing and –less
- Read words which don't follow phonetic patterns, such as 'one' and 'who'
- Become familiar with a wide range of fairy stories and traditional tales
- Discuss favourite words and the meaning of new words
- Check that what has been read makes sense, and self-correct reading where necessary
- Make predictions about what might happen next in a story

Children will be expected to read aloud books which are appropriate for their reading ability. During Year 2 their increasing knowledge of decoding should allow them to read a wide range of children's books.

Parent Tip Reading aloud at home continues to be vitally important at this age. You may even get your child to read their own writing aloud, attempting to add expression appropriate to the story

Writing Skills

- Form letters of the appropriate size, using capital letters where appropriate
- Use appropriate spaces between words when writing
- Begin to use joins between letters where needed
- Spell longer words by breaking them into their sound parts
- Learn to spell some common homophones, recognising the difference between them
- Use the possessive apostrophe in simple phrases, such as 'the boy's football'.
- Write about real events and personal experiences
- Plan out writing in advance, including by writing down key words
- Re-read writing to check that it makes sense and to make corrections, including punctuation
- Use question marks, exclamation marks, apostrophes and commas in lists
- Use the present and past tenses correctly in writing
- Begin to write longer sentences by using conjunctions, such as 'and', 'but', 'if' or 'because'

Homophones are words which sound the same, such as 'blue' and 'blew', or 'one' and 'won'

Science in Year 2

In the first years of schooling, much of the science curriculum is based around real-life experiences for children. This includes everyday plants and animals, as well as finding out about different materials and the four seasons. There are likely to be lots of opportunities for exploring scientific ideas both in the classroom and the local surroundings.

Scientific Investigation

Children are encouraged to carry out their own observations and experiments to further their scientific understanding. In Year 2 this may include learning to:

- Use scientific apparatus to make observations, such as magnifying glasses
- Collect information about what they have seen
- Make links between observations and their scientific understanding

Living Things and their Habitats

- Compare the difference between things which are alive, which are dead, and which have never been alive
- Understand that different animals are suited to different habitats
- Identify some plants and animals in different habitats
- Describe how animals feed on other plants or animals

Habitats are simply the different types of places living things are found. This can range from the vast, such as oceans and rainforests, through to local features such as rock pools, or to the small, such as under a single log.

Plants

- Describe how seeds or bulbs grow into plants
- Understand that plants need water, light and a suitable temperature to grow

Animals including Humans

- Notice that all animals have offspring which grow into adults, including humans
- Know about the basic survival needs of animals, such as food, water and air
- Describe the importance of exercise, healthy diet and hygiene to humans

Everyday Materials

- Identify and compare the uses of different materials including wood, metal, plastic, glass, brick, rock, paper and cardboard
- Find out how some solid objects can be changed by squashing, bending or stretching

Parent Tip Growing your own plants or flowers at home can be an exciting – if slow – process for children to take part in. Why not try some quick-growing seeds such as cress or mustard, as well as something more substantial planted in the garden, and watch how the processes of growth are similar for all plants? At certain times of year you may also be lucky enough to witness some of the growth cycle in animals, such as tadpoles in a pond, or lambing season at the local farm.