

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.

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

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 sentence.



- 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.

