

Maths in Year 2



Studlands Rise First School
First Steps on the Learning Journey



How to Help at Home

Working mathematically

By the end of year 2, children will solve problems with one or a small number of simple steps. Children will discuss their understanding and begin to explain their thinking using appropriate mathematical vocabulary, hands-on resources and different ways of recording. They will ask simple questions relevant to the problem and begin to suggest ways of solving them.

Number

Counting and understanding numbers

Children will develop their understanding of place value of numbers to at least 100 and apply this when ordering, comparing, estimating and rounding. Children begin to understand zero as a place holder as this is the foundation for manipulating larger numbers in subsequent years. Children will count fluently forwards and backwards up to and beyond 100 in multiples of 2, 3, 5 and 10 from any number. They will use hands-on resources to help them understand and apply their knowledge of place value in two digit numbers, representing the numbers in a variety of different ways.

Calculating

Children learn that addition and multiplication number sentences can be re-ordered and the answer remains the same (commutativity) such as $9+5+1=5+1+9$. They learn that this is not the case with subtraction and division. They solve a variety of problems using mental and written calculations for $+$, $-$, \times , \div in practical contexts. These methods will include partitioning which is where the number is broken up into more manageable parts (e.g. $64 = 60 + 4$ or $50 + 14$), re-ordering (e.g. moving the larger number to the beginning of the number sentence when adding several small numbers) and using a number line. Children will know the 2, 5 and 10 times tables, as well as the matching division facts ($4 \times 5 = 20$, $20 \div 5 = 4$) and can recall them quickly and accurately. They apply their knowledge of addition and subtraction facts to 20 and can use these to work out facts up to 100.

Fractions including decimals

Throughout year 2, children will develop their understanding of fractions and the link to division. They explore this concept using pictures, images and hands-on resources. They will solve problems involving fractions (e.g. find $\frac{1}{3}$ of the hexagon or $\frac{1}{4}$ of the marbles) and record what they have done. They will count regularly and fluently in fractions such as $\frac{1}{2}$ and $\frac{1}{4}$ forwards and backwards and, through positioning them on a number line, understand that some have the same value (equivalent) e.g. $\frac{1}{2} = \frac{2}{4}$.

Measurement

Children will estimate, choose, use and compare a variety of measurements for length, mass, temperature, capacity, time and money. By the end of year 2, they will use measuring apparatus such as rulers accurately. They will use their knowledge of measurement to solve problems (e.g. how many ways to make 50p). They extend their understanding of time to tell and write it on an analogue clock to 5 minute intervals, including quarter past / to the hour. They will know key time related facts (minutes in an hour, hours in a day) and relate this to their everyday life.

Geometry

Children will identify, describe, compare and sort common 2-D and 3-D shapes according to their properties (sides, vertices, edges, faces) and apply this knowledge to solve simple problems. They develop their understanding by finding examples of 3-D shapes in the real world and exploring the 2-D shapes that can be found on them (e.g. a circle is one of the faces on a cylinder). Children begin to describe position, direction and movement in a range of different situations, including understanding rotation (turning through right angles clockwise and anti-clockwise). They use their knowledge of shape in patterns and sequences.

Statistics

Children sort and compare information, communicating findings by asking and answering questions. They will draw simple pictograms, tally charts and tables.

Fun Activities to do at Home

Counting and Understanding Number

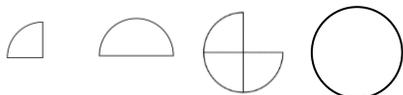
- When out for a walk, look for 2-digit numbers, such as on houses, shop fronts, prices, etc. Ask your child to tell you what the number is, and discuss the value of each digit. For example, in the number 36, the 3 is worth 3 tens or 30, and the 6 is worth 6 units. Can children round these numbers to the nearest 10? Which number from two numbers is bigger/smaller? How do they know?
- There are many games which involve counting, where you can draw your child's attention to the numbers on the board, and discuss the place value of each number, such as Snakes and Ladders or Bingo.
- Support your child to learn their 2, 3, 5 and 10 times tables. See if you can make up some fun rhymes to support this.

Calculating

- When you are shopping, develop your child's mental calculation skills by showing them the price of objects less than £1 and asking them to work out how much change you would get from £1.
- Ask your child to help you work out how much food you need for a party. If 24 children are coming to the party, and cakes are sold in packs of 8, how many packs should you buy? Encourage your child to record this as a number sentence, such as $24 \div 8 = 3$.
- Roll 2 dice to make 2-digit numbers and make these into number sentences for your child to solve eg $36 + 22 =$ or $56 - 31 =$

Fractions including decimals

- Using a selection of objects, such as buttons, ask your child to split the group into $\frac{1}{2}$, $\frac{1}{4}$ $\frac{1}{3}$ etc. Discuss how they have solved this.
- Foods such as jaffa cakes can be cut up to make fraction lines showing $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ and 1 whole so that children can easily compare fractions, eg



Measurement

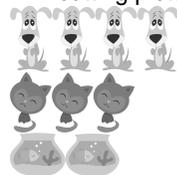
- Use a ruler to measure hand/foot length of different members of the family.
- Look at a range of different clock faces with your child – digital and analogue, 12 hour and 24 hour. Draw your child's attention to the time, the placement of the hands on an analogue clock, and the numbers used on a digital clock.
- Look at a television guide or bus timetable with your child. Can they read the times of programmes/buses. How long is a programme on for? How long does a bus journey take? Can they write a 'timetable' of their typical day?
- Empty a selection of coins from your purse. How many different ways can your child make a given total, eg 20p?
- Set up a toy shop at home by placing price labels on some of your child's toys. What coins will they use to pay for them? Once confident with this, you could also introduce the idea of change eg the child only has a 20p/50p coin to pay with, how much change will they get from the shopkeeper?

Geometry

- Look at the shape of objects around you when you are out with your child. For example, look at the shape of traffic lights, windows, doors, road signs, etc.
- Talk about the shape of cans and packaging when you put your weekly shopping away.
- Undo packaging to look at nets of 3D shapes with your child and look at the 2D shapes that make them up.
- Look for right angles in your environment, eg on furniture such as tables or other objects such as books. In a given amount of time, such as two minutes, who can locate more right angles, you or your child?

Statistics

- Ask your child to make simple graphs of information about themselves and their family or friends. For example, they could make a pictogram of favourite animals by cutting pictures of animals out of magazines.



Encourage your child to make a tally chart of information about their family, for example favourite colours. Ask questions about the information they have found out – most/least popular colour, difference between colours, etc.

Colour	Tally
Red	
Blue	
Yellow	
Green	