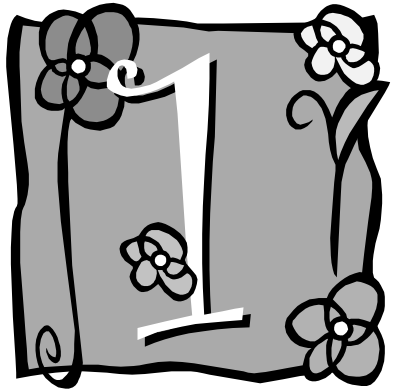
Maths in Year 1

Studlands Rise First School
First Steps on the Learning Journey



How to Help at Home

Working mathematically

By the end of year 1, children begin to solve simple problems involving addition and subtraction in familiar contexts such as going shopping, using a range of hands-on equipment, symbols, images and pictures. They begin to use what they know to tackle problems that are more complex and provide simple reasons for their opinions.

Number

- **Counting and understanding numbers**

Children will identify and represent numbers using objects, pictures and models, such as the number line, and use 'equal to, more than, less than (fewer), most and least.' Children will accurately count numbers to, and across, 100 forwards and backwards from any given number with increasing understanding. They count, read, write and order numbers in numerals up to 100 and from 1 to 20 in words. When given a number, they can identify one more and one less. They can count in multiples of twos, fives and tens.

- **Calculating**

Children will understand known addition and subtraction facts within 20, including zero. They will demonstrate an understanding of multiplication and division through grouping and sharing using hands-on resources, pictorial representations and arrays (2, 5 and 10). They understand doubling and halving small quantities**.**

- **Fractions**

Through play and hands-on resources, children will find and name half and one quarter of objects, shapes and quantities.

Measurement

Children will begin to measure using non-standard units (finger widths, blocks etc.) moving to standard units of measure (e.g. cm) using tools such as a ruler, weighing scales and containers. They will begin to record and compare measurements such as lengths and heights, mass and weight, capacity and volume using language such as long / short; heavy / light; full / half-full / empty. They will tell the time to the hour, half past the hour and be able to sequence events in chronological order using precise language (for example, before and after, next, first, today etc.). Children will recognise and know the value of different denominations of coins and notes.

Geometry

Children will recognise and name common 2-D shapes, e.g. rectangles (including squares), circles and triangles, and 3-D shapes, e.g. cuboids (including cubes, pyramids and spheres) in different orientations and sizes. They will describe position, direction and movement, including whole, half and three quarter turns.

Statistics

In preparation for year 2, children will begin to compare, sort and classify information, including through cross curricular links e.g. science – sorting materials into groups according to their properties. They will also begin to construct simple pictograms and tables.

Fun Activities to do at Home

Counting and Understanding Number

- Make a number line with your child, making each number special, for example 5 goldfish, 2 brothers, etc. Hang it somewhere that your child will look often. Ask questions about the order of the numbers, what number is before or after.
- Play a game of secret numbers. Using a hundred square, ask your child to secretly choose a number, then ask questions that can be answered by yes or no to help find out what number they have chosen. For example, is it larger than 6? Is it between 10 and 20? Once you have guessed the number, swap roles.

Calculating

- Collect objects such as shells or buttons. Combine them in different ways to make a total, such as 10 or 20. This will help to reinforce number bonds. Discuss how these known number facts can help to work out other facts, eg if I know that 3+7=10, what else do I know? (7+3 = 10, 10 – 7 = 3 and 10 – 3 = 7)
- Play the dice game. Take turns to choose a number between 1 and 20 and write it down. Throw a dice and say the number out loud. Work out the difference between the chosen number and dice number. For example, if the chosen number was 3 and the dice number was 5, the difference would be 2. You could also draw a number line to help your child work out the difference.
- Start with your child's age and ask them how old they will be in 1, 2 or 10 years time. How old were they last year? How many years until they will be 13? and so on.
- Play games that will help your child with their counting, such as hop scotch, snakes and ladders, bingo and skittles.
- When cooking, talk to your child about the quantities you are using. How much would you need if you wanted to feed twice as many people? How much would you need if you halved the quantity to feed less people?
- Use as many different ways as possible to ask a number problem. For example, 3 and 2, 3 add 2, the total of 3 and 2, what are 3 and 2 altogether? all mean the same thing.
- What is the difference between 4 and 6? How many greater than 4 is 6? 6 subtract 4, 6 take away 4, 4 less than 6 all mean the same thing.
- Encourage your child to write number sentences. For example, I have 2 brothers and 3 sisters: 2+3 = 5, so I have 5 brothers and sisters altogether.

Fractions

- Using a selection of objects, such as toy cars, ask your child to split the group into half. Emphasise that each group has the same number. When your child is confident with this, they can begin to split a group of objects into quarters and make the link with this being half of a half.
- It is always fun to split cakes, chocolate bars and pizzas into half or quarter!

Measurement

- Ask everyone in the family to line up. Who is the tallest? Who is the shortest? Measure each family member to see how many hands tall they are. Use a tape measure to see how tall they are.
- Measure the weight of ingredients when cooking. What ingredient are you using most of? What ingredient are you using least of? Can your child read the scale on the weighing scales?
- Get some packets from the cupboard. Look at the weights on them, and line them up in order of weight, from the lightest to the heaviest.
- Measure ingredients out for a recipe using different sized spoons. Do you need more large spoons or more small spoons?
- When pouring drinks or filling a vase with water, talk to your child about how much liquid is in the container – empty, full, half full, etc.
- 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.
- Talk to your child about their routine. For example, tell them what time they get up, what time they have dinner, what time they go to bed, etc.
- Empty a selection of coins from your purse. Can your child identify how much each coin is worth? Which coins are equivalent in value eg 2 5 pence coins are worth the same as one 10 pence coin.
- 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.

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 sort items into groups and give each group a label.

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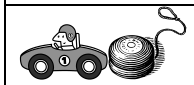	

- Alternatively, you can split a selection of objects into 2 or more groups and see if your child can work out what 'label' would be given to each group.