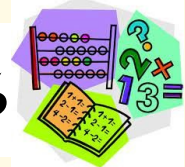# Maths Masterclass

Year 6: Spring 1

We hope you are enjoying our Maths Newsletters. We have included the strategies that we use for teaching maths in class, alongside some online resources and activities for your child to try at home. We hope this helps with supporting your child at home and celebrating their success.

Ratio

Children will be solving lots of problems including

- the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts
- the calculation of percentages [e.g., of measures, and such as 15% of 360] and the use of percentages for comparison
- unequal sharing and grouping using knowledge of fractions and multiples

A prize is shared in a ratio of 3 : 4 between Jamie and Dan. If Jamie gets £ 2 1, how much will Dan get?

Jamie : Dan
3 : 4
2 1 : 2 8

1) Work out how to get from the share you know to the value. In this case, multiply by 7.

2) Do the same with the other shares.

Jamie will get £21 and Dan will get £28.

A prize of £200 is shared in a ratio of 3:2 between Diane and Dave. How much should they get each?

Diane : Dave
3 : 2 = 5

1) Add together the total shares (3+ 2 = 5)

2) Work out how to get from the total shares to the overall amount.

Diane : Dave
3 : 2 = 5 x40
= £200

3) Multiply each of the shares by that amount.

Diane : Dave
3 : 2 = 5 x40

Scaling

Children will be solving problems involving similar shapes where the scale factor is known or can be found .

Use scale factor– recipes
Recipe for fairy cakes– 2 people.
Complete the recipe for 8 people.
1) Work out the relationship between 2 and 8 (x 4)
2) Using your scale factor, convert each value (x 4)

	(x 4)	
6 eggs		24 eggs
100g flour	→	400g flour
50g butter		200g butter
80 ml milk		320 ml milk

For measurements where there is not a clear scale factor, first find the amount for one serving.

BIDMAS

This is known as the order of operations. Multiplication can come before division if it appears first in the problem.

B (Brackets)
I indices (squared or cubed)
D Division
M Multiplication   Equally important
A Addition
S Subtraction   Equally important

Translation & reflection

Children will be describing positions on the full coordinate grid (all four quadrants) and will be able to draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
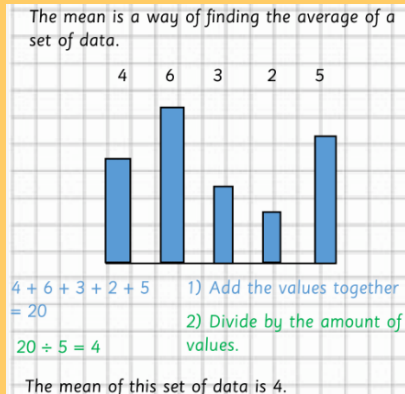
translation

reflection

rotation
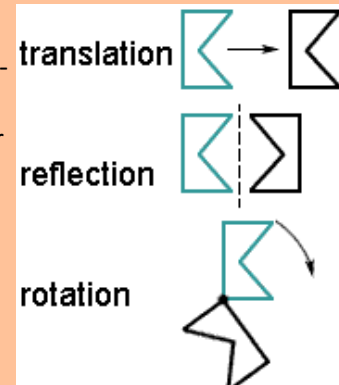
Maths at Home

Ideas to try at home

We will be looking at statistics next term. Could you create a tally and present the data based on something you could measure at home? Which questions could you ask about the data? Maybe how many cars pass by? How many words can you read each day? Which letter is found the most in a text? Can you find the average (mean)?

The mean is a way of finding the average of a set of data.

| 4 | 6 | 3 | 2 | 5 |

$4 + 6 + 3 + 2 + 5 = 20$

$20 \div 5 = 4$

1) Add the values together
2) Divide by the amount of values.

The mean of this set of data is 4.

Family challenge

How Old is Granny?

Tom asked his Granny how old she was. Rather than giving him a straight answer, she replied:

"I have 6 children, and there are 4 years between each one and the next. I had my first child (your Uncle Peter) when I was 19. Now the youngest one (Your Auntie Jane) is 19 herself. That's all I'm telling you!"

How old is Tom's Granny?

Ask your teacher for the answer

Please try to spend 10-15 minutes practising times tables as often as possible to support fluency. Fast recall of times tables really helps children when they solve problems and do more complex maths!

Homework

Children will be set a weekly homework on the Sats Companion site. It can be accessed on tablets, laptops and phones. If your child has difficulty logging in or needs more support, please contact ask your child's teacher.
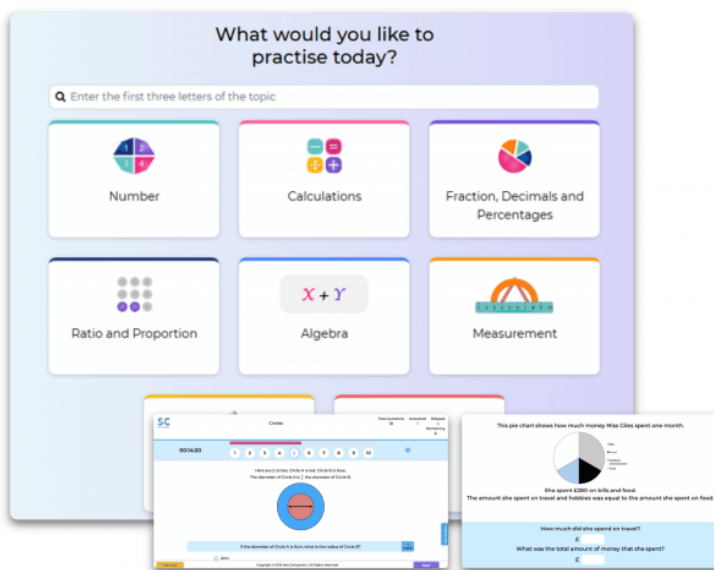
This website can also be used to watch any videos based on many topic areas.

Your child does not need to wait for this to be allocated– they can log on at any time and watch if they are finding a particular area tricky.

What would you like to practise today?

Number | Calculations | Fraction, Decimals and Percentages

Ratio and Proportion | Algebra | Measurement