



Maths Masterclass



Year 6: Spring 2

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.

Formula

Children will be using simple formulae and will be generating and describing linear number sequences.

We will also be looking at formula to find perimeter, area and volume.

1) 6, 10, 14, 18, 22 The sequence increases by 4, so the n th term starts with $4n$

$+4$ $+4$ $+4$ $+4$

Now compare the sequence to the 4 times table

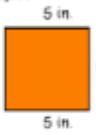
6, 10, 14, 18, 22 Each term is 2 bigger than the 4 times table

$+2$ $+2$ $+2$ $+2$ $+2$

4, 8, 12, 16, 20 So the n th term is $4n + 2$

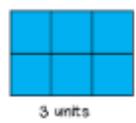
Fantastic Formulae!

Perimeter: measurement of the distance around an object



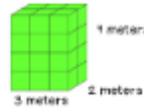
$p = s + s + s + s$
 $p = 5 + 5 + 5 + 5$
 $p = 20 \text{ in.}$

Area: measurement of 2D space inside an object



$a = l \times w$
 $a = 3 \times 2$
 $a = 6 \text{ units}^2$

Volume: measurement of 3D space inside an object



$v = l \times w \times h$
 $v = 3 \times 2 \times 1$
 $v = 6 \text{ meters}^3$

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Algebra

After looking at formulae, children will be : Looking at expressing missing number problems algebraically and finding pairs of numbers that satisfy an equation with two unknowns.

E.g.

$$B + C = 12$$

Can you find two numbers that

Add together to make 12?

We could use a table to start listing some of the possible combinations of the letter B and C.

B	C
1	11
2	10
3	9
4	8
5	7

Factors, multiples and prime numbers

We will be looking at factors, multiples & prime numbers. We will be looking at common factors & multiples and investigating patterns with these numbers. This is a good chance to ensure your child is secure in their times tables. A good understanding of their times tables will be very beneficial to the children particularly in their arithmetic and fraction work.

Measures

We will be recapping converting of measures this term. Children undertake a weekly challenge on converting measures as part of their arithmetic. Ensuring your child is confident in multiplying and dividing by 10, 100 and 1000 will help with this.

We will also look at converting between miles and kilometres.

Facts to remember:

$$1 \text{ mile} = 1.6 \text{ km}$$

$$5 \text{ miles} = 8 \text{ km}$$



Maths at Home



Ideas to try at home

We will be looking at scale factor in recipes. Could you adapt some recipes at home for different amounts of people?

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)

6 eggs	(x 4)	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.

Family challenge



Houses Puzzle

Four houses next to each other have numbers which add up to 52. What are their numbers? Clue: Remember that house numbers are not always just consecutive. Houses on one side can be consecutive odd and on the other side consecutive even.



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 in their CGP test books.

What would you like to practise today?

Enter the first three letters of the topic

Number

Calculations

Fraction, Decimals and Percentages

Ratio and Proportion

Algebra

Measurement

If they would like to access additional practice they can still use their SATs companions logins. If your child has difficulty logging in or needs more support, please contact ask your child's teacher.

This website can 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.