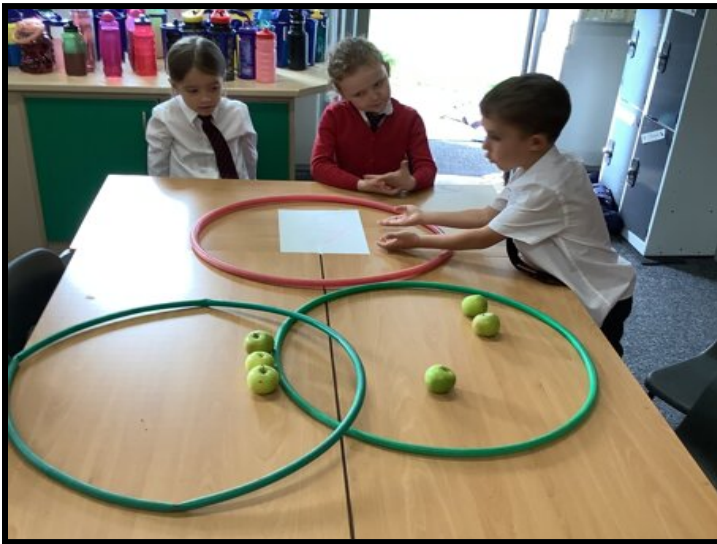# MATHS NEWSLETTER December 2023

Introduction

Welcome to our Autumn Maths Newsletter. In our termly newsletter we will keep you informed of what we have been learning in school and how you can support your child at home on their mathematical journey. It has been an exciting and busy term, with lots of fantastic learning opportunities and achievements in all year groups.
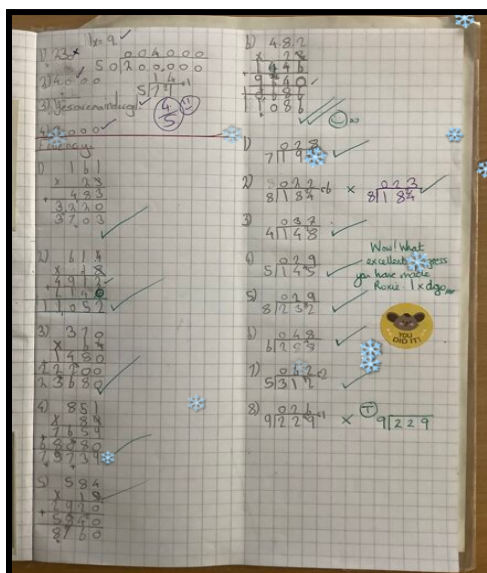

How is Maths taught in school?

In school we use the White Rose Maths (WRM) scheme of learning which aims to support all pupils achieve a deep understanding and competence in mathematics through a teaching for mastery approach. Teaching for mastery rejects the idea that children 'can't do maths' therefore pupils are encouraged by the belief that by working hard they can succeed.

Teaching for mastery is supported by a Concrete, Pictorial and Abstract (CPA) approach to teaching. The CPA approach is a system of learning that uses physical and visual representations to build a child's understanding of abstract topics.Pupils are introduced to a new mathematical concept through the use of **concrete** resources (e.g. counters, blocks etc). When they are comfortable solving problems with physical aids, they are given problems with pictures – usually **pictorial representations** of the concrete objects they were using. Then they are asked to solve problems where they only have the **abstract** i.e. numbers or other symbols. Building these steps across a lesson can help pupils better understand the relationship between numbers and the real world, and therefore helps secure their understanding of the mathematical concept they are learning.
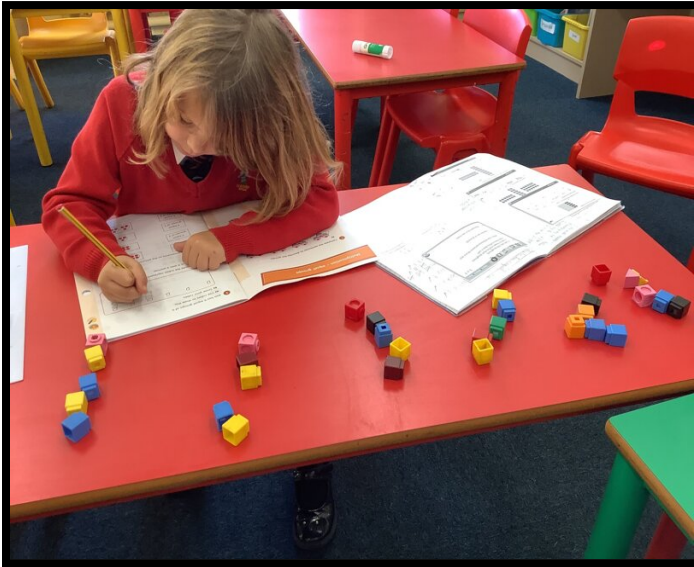
What we have been up to...

St Mary's

Year group	This term	Home learning links to support...
EYFS	Match, Sort and Compare Measure and Pattern, Circles, triangles and 4 sided shapes Counting 1,2,3,4,5	WRM home learning videos and activities via website https://whiteroseeducation.com/parent-pupil-resources/maths/home-learning?year=early-years&term=autumn
1	Place Value, Addition and Subtraction, Shape, Fluency Bee	WRM homework books via website https://www.st-marys-colton.staffs.sch.uk/children/class-2/class-2-homework
2	Place Value, Addition and Subtraction Fluency Bee	WRM homework books via website https://www.st-marys-colton.staffs.sch.uk/children/class-2/class-2-homework
3	Place Value, Addition and Subtraction, Multiplication and Division	WRM homework books via website https://www.st-marys-colton.staffs.sch.uk/children/class-2/class-2-homework
4	Place Value, Addition and Subtraction, Area, Multiplication and Division	WRM homework books via website. https://www.st-marys-colton.staffs.sch.uk/children/class-2/class-2-homework
5	Place Value, Addition and Subtraction,	WRM videos and problem solving and reasoning

	Multiplication and Division, Fractions	questions uploaded to Google Classroom. WRM homework books via website. https://www.st-marys-colton.staffs.sch.uk/children/class-4/class-4-homework
6	Place Value, Multiplication and Division, Fractions.	WRM homework books via website. https://www.st-marys-colton.staffs.sch.uk/children/class-4/class-4-homework

The Howard

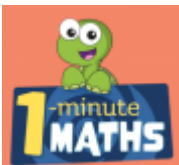| Year group	This term	Home learning links to support…
EYFS	Match, Sort and Compare Measure and Pattern, Circles and triangles Counting 1,2,3,4,5	https://whiteroseeducation.com/parent-pupil-resources/maths/home-learning?year=early-years&term=autumn
1	Place Value, Addition and Subtraction, Shape, Fluency	https://howard.staffs.sch.uk/children/class-1/class-1-homework
2	Place Value, Addition and Subtraction, Shape, Fluency Bee	https://howard.staffs.sch.uk/children/class-1/class-1-homework
3	Place Value, Addition and Subtraction, Multiplication and Division	https://howard.staffs.sch.uk/blog/category/class-2
4	Place Value, Addition and Subtraction, Multiplication and Division	WRM sheets sent home. https://howard.staffs.sch.uk/blog/category/class-2
5	Place Value, Addition and Subtraction, Multiplication and Division , Fractions	CPG Year 5 maths book. https://howard.staffs.sch.uk/blog/category/class-3
6	Place Value, Addition and Subtraction, Multiplication and Division, Fractions, Converting Units	CPG Year 6 maths book. https://howard.staffs.sch.uk/blog/category/class-3

How can I help my child at home?

How best to help your child at home? Why not support their mathematics journey by accessing their learning through these home workbooks. Simply click on the link and work through the questions with your child. Revision at the end of a unit is always beneficial as there is some pre-teaching, showing them the next unit they will be learning about in school can boost confidence as well as subject knowledge. More information can be found by clicking on the link:
https://whiteroseeducation.com/parent-pupil-resources/maths/free-downloads

Learn how much fun counting can be with the **Numberblocks** - a fun-loving group of numbers who work together to solve problems big and small. Numberblocks is most suitable for children aged **3-6 years.** More information can be found by clicking on the link: https://www.bbc.co.uk/iplayer/episodes/b08bzfnh/numberblocks

White Rose Maths have created a free '1-minute maths' app. The aim of the app is to develop pupils' understanding of number and is great for practising early number skills such as subitising (the skill of instantly recognising the number of items in a group without counting) addition, subtraction, multiplication and division. The app is most suitable for pupils from **Reception up to Year 3.** More information can be found by clicking on the link: https://whiteroseeducation.com/1-minute-maths

Hit the Button is an interactive maths game aimed at **5-11 year olds** with quick fire questions on number bonds, doubling and halving, multiplication and division facts and square numbers. The games, which are against the clock, challenge and develop mental maths skills. More information can be found by clicking on the lin: https://www.topmarks.co.uk/apps/hit-the-button
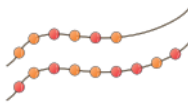

This activity exactly mirrors the 'Multiplication Tables Check' that will be given to children at the end of **Year 4**. They are tested on their multiplication tables up to 12 x 12. There are twenty-five questions and children have six seconds to answer each question and three seconds between questions. The questions are generated randomly using the same rules as the 'Multiplication Tables Check'. More information can be found by clicking on the link: https://mathsframe.co.uk/en/resources/resource/477/Multiplication-Tables-Check

Challenge your child…

Fancy taking on your child in Maths? Why not see if you can both answer the Place Value challenge questions for your child's year group below.

Year 1

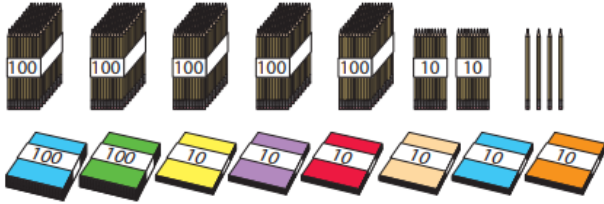| Mastery	Mastery with Greater Depth
Compare amounts. What's the same? What's different? *Children compare the bead strings and notice:* *One has 9 beads and the other has 6 beads.* *9 is 3 more than 6.* *6 is 3 less than 9.* *Pupils should be able to successfully respond to questions such as:* ■ *Count forwards from 36, etc.* ■ *Point to the third object in the line.* ■ *Show me 8 cubes.* *Pupils should demonstrate one to one correspondence, cardinality and conservation of number.*	I am going to count on from 20. Will I say the number 19? Convince me. I am going to count on in twos from 3. Will I say an even number? Convince me. I am going to count backwards from 20. How many steps will it take to reach 0? Convince me. I am going to count backwards in twos from 20. How many steps will it take to reach 0? Convince me.

Year 2

Mastery	Mastery with Greater Depth
Put a circle around the larger number. 1) 50 48 2) 77 81 3) 78 87	Write all the 2-digit numbers greater than 40 using these digits. 2 4 6 6 How do you know you have them all? Prove it.
Use coins to make the amount. 196p 100s / 10s / 1s £1 10p 1p	Jo has £2·29. She only has £1 coins, 10p coins and 1p coins. How many of each coin does she have? Can you suggest a different answer?

Year 3

Mastery	Mastery with Greater Depth
Find the number of pencils. Find the number of exercise books. *Guide pupils to use practical equipment to deepen their understanding of place value and apply their knowledge of place value in mental and written calculation.*	Captain Conjecture says 'The number in the place value grid is the largest 3-digit number you can make using all 10 counters'. Do you agree? Explain your reasoning.

100s	10s	1s
● ● ● ● ● ● ●	●	●

Year 4

Mastery	Mastery with Greater Depth
What temperature is 20 degrees lower than 6 degrees Celsius?	Can you draw a fish at −35 m? Can you draw a seagull at 20 m above sea level? What would the position of your fish and the seagull be if each of the intervals on the lighthouse represented 7 m?

Year 5

Mastery	Mastery with Greater Depth
What can we say about 48 000? It is [ ] less than 50 000. It is made of 40 000 and [ ] together. It is made of [ ] thousands. It is made of [ ] hundreds. It is made of [ ] tens.	Using all of the digits from 0 to 9, write down a 10-digit number. What is the largest number you can write? What is the smallest number you can write? Write down the number that is one less than the largest number. Write down the number that is one more than the smallest number. Captain Conjecture says, 'Using the digits 0 to 9 we can write any number, no matter how large or small.' Do you agree? Explain your reasoning.

Year 6

Mastery	Mastery with Greater Depth
Put these numbers in order, from smallest to largest. ▪ 3·3, 3·03, 3·33, 3·303, 3·033 ▪ 5834, 61·8 multiplied by 100, one tenth of 45813 ▪ 0·034, 3·6 divided by 100, ten times 0·0033 ▪ −4·4, −4·44, −4·04, −4·404	Eduardo says, 'The the population of Mexico City is 11 million (to the nearest million) and the population of New York is 11·2 million (to the nearest hundred thousand).' He says, 'The population of New York must be bigger than the population of Mexico City because 11·2 million is bigger than 11 million.' Do you agree with him?

Have a Merry Christmas and a Happy New Year!