

Maths workshop for parents

White Rose Maths

Overview of what I'm covering today

- The curriculum; from EYFS to Year 6.
- Manipulatives.
- Arithmetic and Flash Back 4.
- Supporting and challenging all students.
- Numbots and Times Table Rock Stars.
- Homework.

Has Maths changed?

- At St Mary's, we understand that many parents feel like Maths has changed, and that it's sometimes difficult to keep up to date with modern teaching methods.
- With over 80% of primary schools using White Rose Maths, White Rose Maths can help bridge the gap between school and home.
- <https://whiteroseeducation.com/parent-pupil-resources/maths/maths-with-michael>
- Maths with Michael:
<https://whiteroseeducation.com/parent-pupil-resources/maths/maths-with-michael>

The curriculum

- The White Rose scheme teaches children mathematical concepts through pictorial, practical and written methods in order to develop a deep understanding, confidence and competence in Maths and improve fluency.
- Fluency in Maths is about developing number sense and being able to choose and use the most appropriate method for the task at hand and be able to apply a skill to multiple contexts.
- White Rose uses the CPA approach:
Concrete, Pictorial, Abstract approach, which is a highly effective approach to teaching that develops a deep and sustainable understanding of maths in pupils.

The curriculum

- The long term plans (to follow), provided by WRMH, ensure complete coverage of the curriculum.
- The resources and worksheets
- Our school's calculation policy ensures teachers are aware of what methods to teach in each year group for all areas of the curriculum.

Long term plan – Year 1

Autumn term	<p>Number</p> <p>Place value (within 10)</p> <p>VIEW</p>	<p>Number</p> <p>Addition and subtraction (within 10)</p> <p>VIEW</p>		<p>Geometry Shape</p> <p>VIEW</p>	Consolidation		
Spring term	<p>Number</p> <p>Place value (within 20)</p> <p>VIEW</p>	<p>Number</p> <p>Addition and subtraction (within 20)</p> <p>VIEW</p>	<p>Number</p> <p>Place value (within 50)</p> <p>VIEW</p>	<p>Measurement</p> <p>Length and height</p> <p>VIEW</p>	<p>Measurement</p> <p>Mass and volume</p> <p>VIEW</p>		
Summer term	<p>Number</p> <p>Multiplication and division</p> <p>VIEW</p>	<p>Number</p> <p>Fractions</p> <p>VIEW</p>	<p>Geometry Position and direction</p> <p>VIEW</p>	<p>Number</p> <p>Place value (within 100)</p> <p>VIEW</p>	<p>Measurement Money</p> <p>VIEW</p>	<p>Measurement</p> <p>Time</p> <p>VIEW</p>	Consolidation

Long term plan – Year 6

Autumn term	<p>Number</p> <p>Place value</p> <p>VIEW</p>	<p>Number</p> <p>Addition, subtraction, multiplication and division</p> <p>VIEW</p>	<p>Number</p> <p>Fractions A</p> <p>VIEW</p>	<p>Number</p> <p>Fractions B</p> <p>VIEW</p>	<p>Measurement</p> <p>Converting units</p> <p>VIEW</p>	
Spring term	<p>Number</p> <p>Ratio</p> <p>VIEW</p>	<p>Number</p> <p>Algebra</p> <p>VIEW</p>	<p>Number</p> <p>Decimals</p> <p>VIEW</p>	<p>Number</p> <p>Fractions decimals and percentages</p> <p>VIEW</p>	<p>Measurement</p> <p>Area, perimeter and volume</p> <p>VIEW</p>	<p>Statistics</p> <p>VIEW</p>
Summer term	<p>Geometry</p> <p>Shape</p> <p>VIEW</p>	<p>Geometry</p> <p>Position and direction</p> <p>VIEW</p>	<p>Themed projects, consolidation and problem solving</p> <p>VIEW</p>			

Progression of skills document

PLACE VALUE

Counting

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number			count backwards through zero to include negative numbers	interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero	use negative numbers in context, and calculate intervals across zero
count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens	count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward	count from 0 in multiples of 4, 8, 50 and 100;	count in multiples of 6, 7, 9, 25 and 1 000	count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000	
given a number, identify one more and one less		find 10 or 100 more or less than a given number	find 1 000 more or less than a given number		

Comparing Numbers

use the language of: equal to, more than, less than (fewer), most, least	compare and order numbers from 0 up to 100; use <, > and = signs	compare and order numbers up to 1 000	order and compare numbers beyond 1 000 compare numbers with the same number of decimal places up to two decimal places	read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit
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Flash Back 4

Flashback 4 Year 4 | Week 1 | Day 2

1) Work out 11×7

2) What is $63 \div 7$?

3) What is nine multiplied by zero?

4) Find the perimeter of the square.

4 cm

Revisit time daily

White Rose Maths

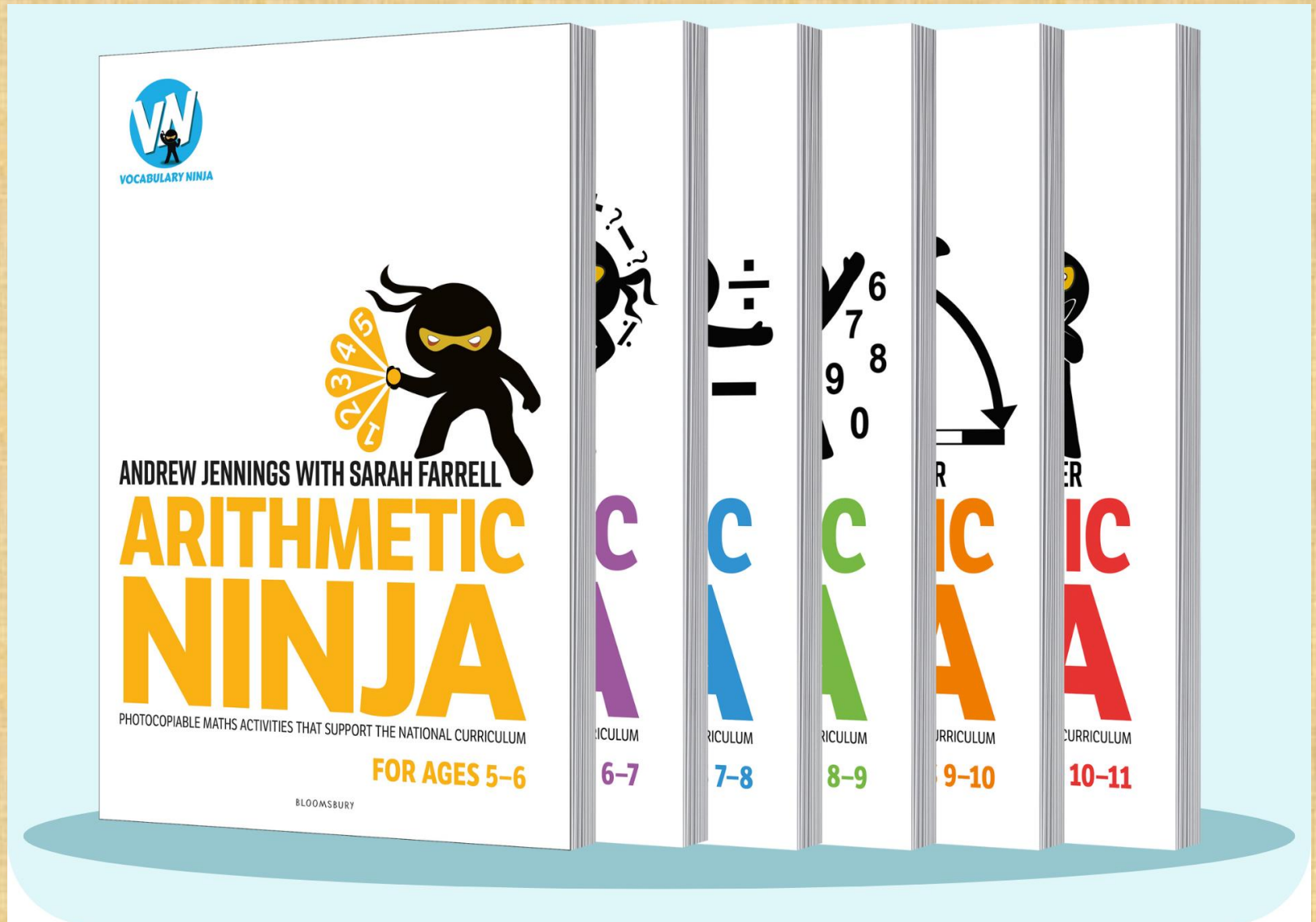
A question from yesterday

A question from last week

A question from 2-3 weeks ago

A question from last term/year

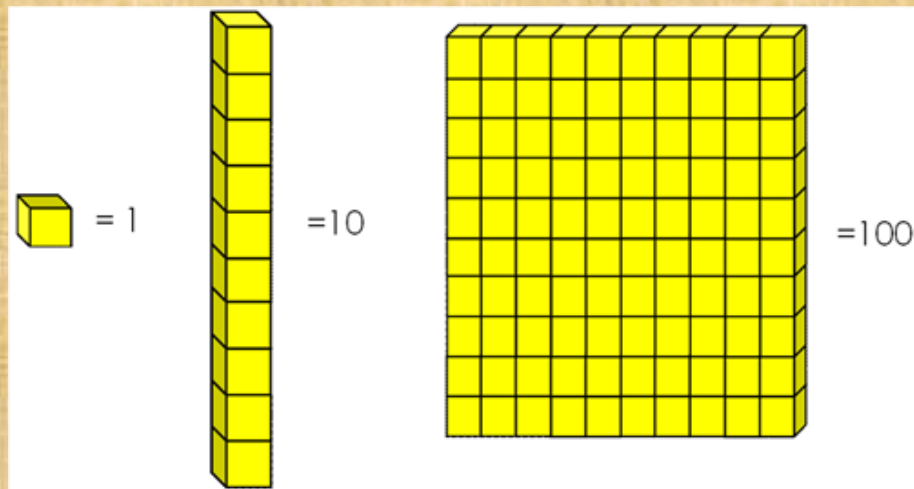
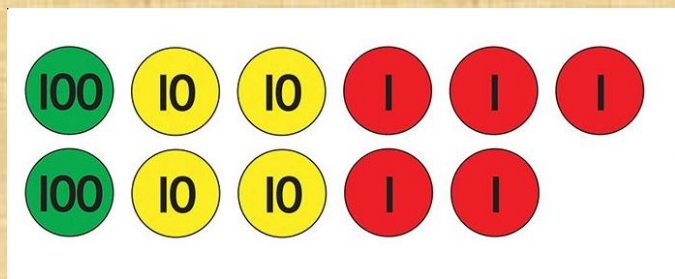
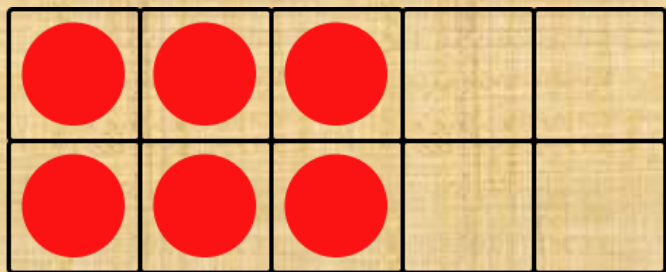
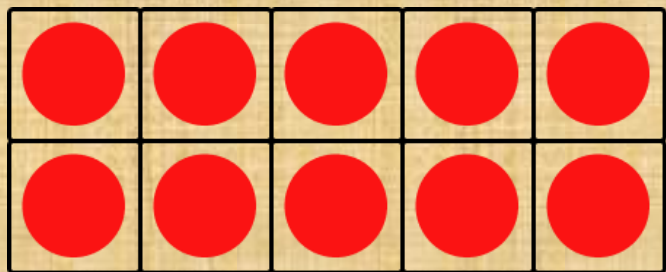
Daily Maths Arithmetic



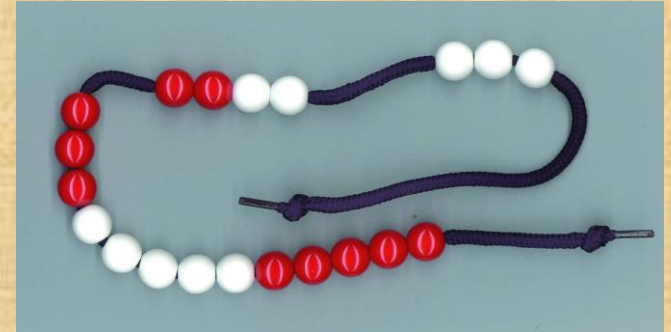
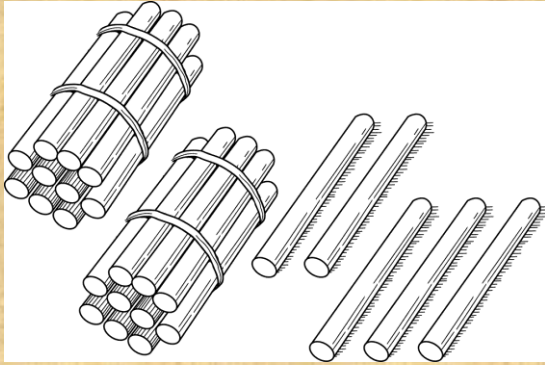
Daily Maths Arithmetic

- Split into 38 weeks, with over 680 question cards, fully aligned to the National Curriculum (Key Stage 1 and Key Stage 2) for mathematics.
- There are activities for each day of the week plus a bonus challenge. These books are the perfect resource for daily maths practice, spanning the whole academic year!
- The exercises in the books get progressively harder each week, and are divided into three Ninja levels to ensure differentiation.

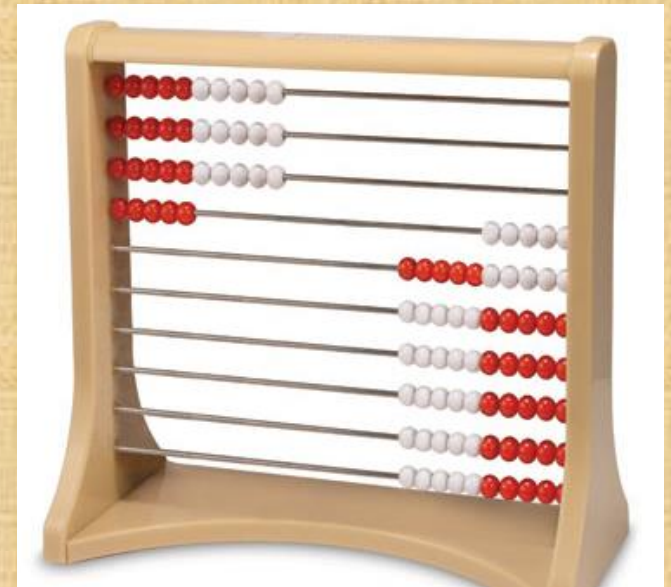
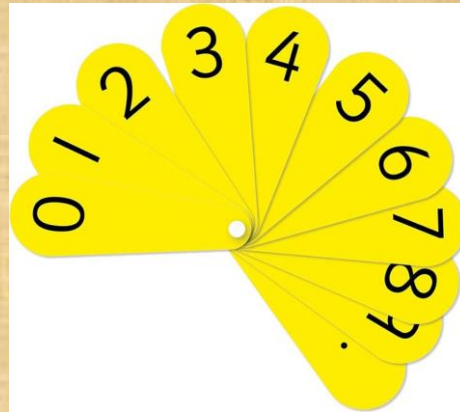
Manipulatives



Manipulatives and visual representations



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	38	29	30
31	32	33	34	35	36	37	48	39	40
41	42	43	44	45	46	47	58	49	50
51	52	53	54	55	56	57	68	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



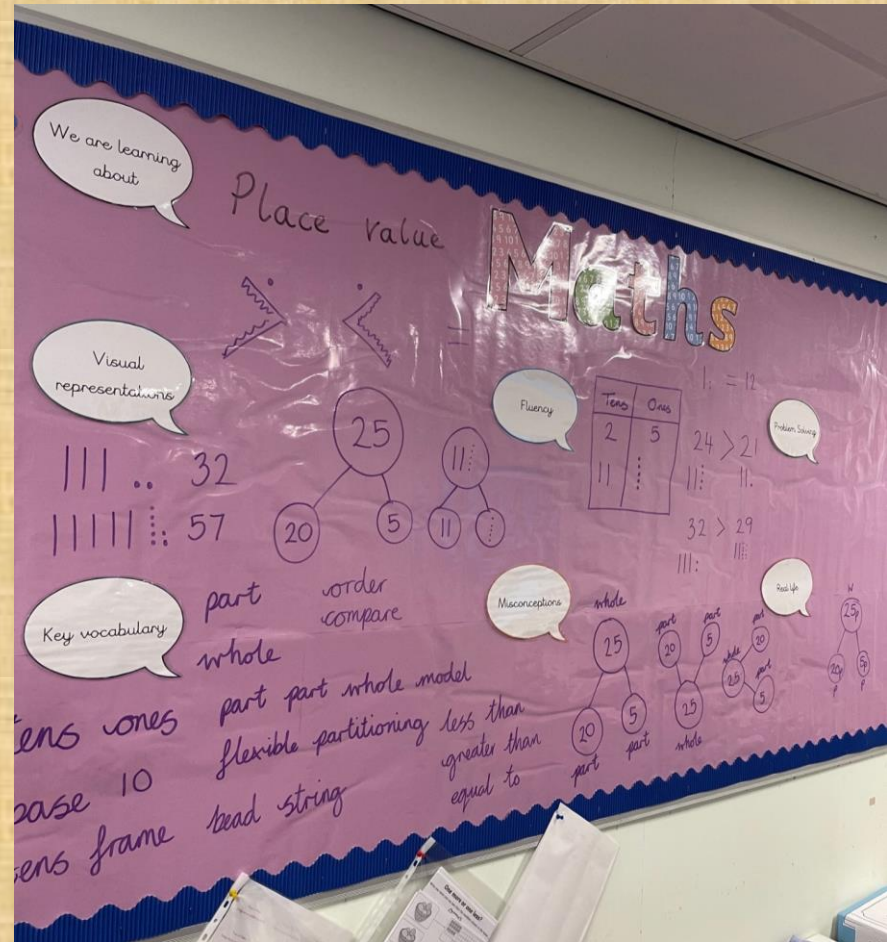
Supporting and challenging all students

- Pre and post assessments
- Gap analysis
- Manipulatives and adult support
- Numicon interventions (KS1 + KS2)
- Range of resources to supplement WRM to extend the learning and provide different contexts and styles of questioning.

Place value		
Pre	Post	Net
4	12	8
7	10	3
7	8	1
9	10	1
3	7	4
4	9	5
11	15	4
10	15	5

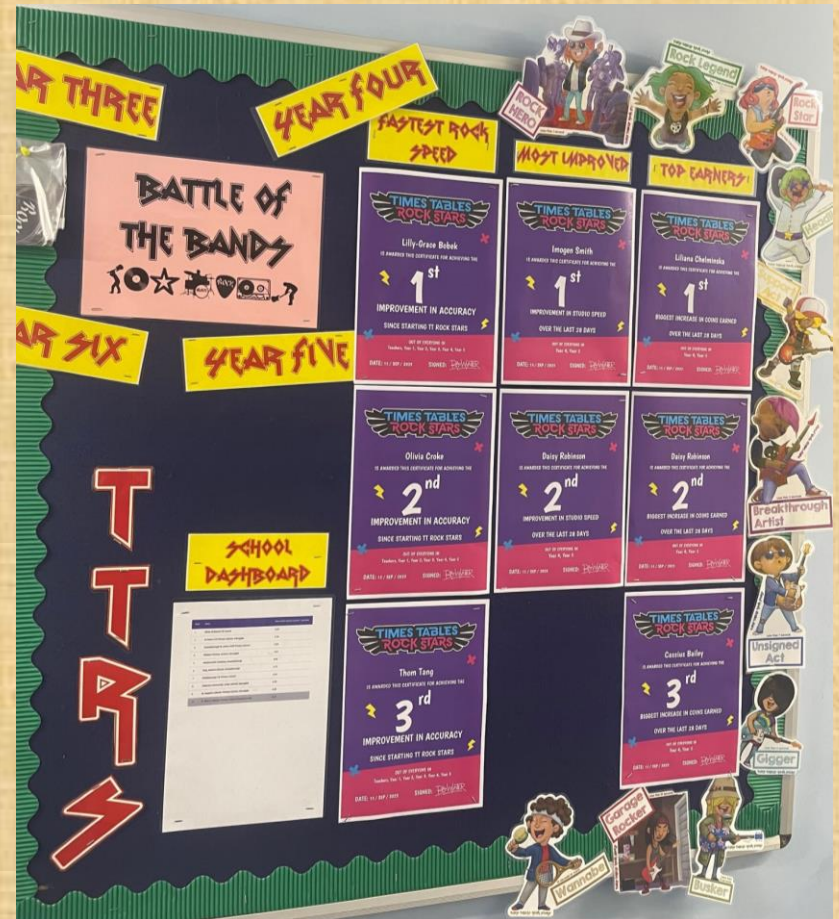
Supporting and challenging all students

- Working walls
 - We are learning about...
 - Visual representations
 - Fluency
 - Problem Solving
 - Key Vocabulary
 - Misconceptions
 - Real life



Times Table Rock Stars and Numbots

- Usernames and passwords
- Displays
- Battles
- Play at home, play in school.



Maths homework

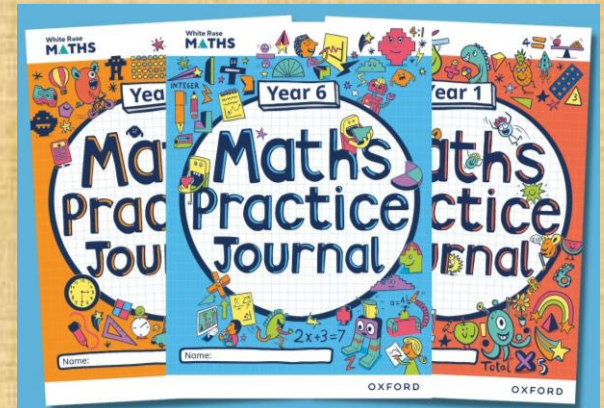
- The subjects today's parents can't help their kids with at homework time:
 - Maths 55%
 - Physics 24%
 - English 23%
 - Chemistry 23%
 - Languages 20%
 - Biology 14%
 - History 13%
 - Geography 12%
 - Design and Technology 10%
 - Art 10%
- <https://whiteroseeducation.com/latest-news/primary-school-parents-baffled-by-their-kids-homework>

Maths homework

- **Of the 1,000 8 - 13 year olds who were also polled as part of the study, 21 per cent revealed their parents often make mistakes when trying to help them and 22 per cent said they make matters worse by confusing them.**
- 28 per cent of UK parents confessed they could really do with some help – especially in the maths department, with nearly half of the children polled claiming to know more about maths than their parents.
- In fact, 43 per cent of kids said they were more likely to look online for help than ask Mum or Dad.
- <https://whiteroseeducation.com/latest-news/primary-school-parents-baffled-by-their-kids-homework>

Maths homework: so how are we helping?

- All maths homework sent home will link to the work being covered in class.
- School website, Maths page, links to White Rose Maths, 'Maths with Michael,' a short 'how to' guide how you can help your child.
- <https://assets.whiteroseeducation.com/web-pages/maths-with-michael/A-guide-to-place-value.pdf>
- Wednesday – see front cover.
- If you're having difficulty with Maths homework speak to your child's class teacher.



EYFS

- White Rose supports teaching through small steps with adult-led activities and continuous provision.
- The focus is on building up the numbers slowly, so children gain a deep understanding of them and how they are composed.
- However, this does not mean children should not be counting and discussing larger numbers in routines such as lining up.

EYFS

- Currently the focus is “hands on learning” evidenced on Tapestry.
- Later in the year, children will move to completing some worksheets; getting them ready for Year 1.



Long term plan – Reception

Overview with suggested weekly timings. Block titles are clear and show progress through number and spatial reasoning.

Early blocks focus on use of provision to support key early maths and routines.

The first 2 weeks are for you to get to know children, develop routines and give you the flexibility to complete baseline assessments.

Yearly overview

The yearly overview provides suggested timings for each block of learning, which can be adapted to suit different term dates or other requirements.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Getting to know you		Match, sort and compare		Talk about measure and patterns		It's me 1, 2, 3		Circles and triangles		1, 2, 3, 4, 5	
Spring	Alive in 5		Mass and capacity		Growing 6, 7, 8		Length, height and time		Building 9 and 10		Explore 3-D shapes	
Summer	To 20 and beyond		How many now?		Manipulate, compose and decompose		Sharing and grouping		Visualise, build and map		Make connections	
											Consolidation	

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White Rose MATHS

Consolidation weeks allow for a degree of flexibility in the suggested block lengths or to consolidate learning based on the needs of your children.

Content is consolidated so all concepts are explicitly taught before assessment for ELG.

Subitising is taught both perceptually and conceptually through the blocks. Concepts such as doubling and 1 more / 1 less is focused on in the progression of the numbers.

EYFS

Continuous provision

Support children to make their own representation cards.

Provide them with a piece of paper and allow them to paint, draw or use collage materials to represent the numbers 1, 2 and 3

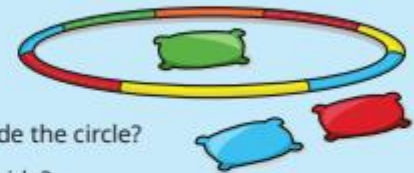


Children can create their own dots, dice patterns, or create a picture of something that interests them.

These can then be used to play games such as 'Snap'.

Place a hoop on the ground.

Ask the children to collect 3 beanbags and to take turns to throw them into a circle.



How many land inside the circle?

How many land outside?

Provide an easel or clipboard so that they can record their own scores.

Make dough. Use a recipe that involves measuring using 1, 2 or 3 cups.

Ask children to measure out the ingredients and count the cups.

2 cups of plain flour
1 cup of salt
2 cups of water
2 tablespoons of oil
1 teaspoon of cream of tartar
3 drops of food colouring

Provide a collection of various loose parts or natural objects and some small pots labelled 1, 2 and 3 for children to fill.



Include some unlabelled pots and encourage children to make their own labels to show how many they put inside.

EYFS

An activity introduced by a reading from a fiction or non-fiction book.



Show children the illustrations from pages 1, 2 and 3 of the story *Anno's Counting Book* by Mitsumasa Anno. Encourage them to look at the pictures and identify where they can see the different representations of 1, 2 and 3
Where do they see each representation?
How do they see it?

An activity which includes a rhyme or musical instrument.



Have a pile of beanbags.
Beat a drum either 1, 2 or 3 times.



Children listen carefully and count out 1, 2 or 3 beanbags from a larger group to match the number of beats.

A suggested daily routine to be supported by a teacher.



Daily routine

- When lining up in the day, ask children to join the line depending on different attributes, for example, line up if you have a sister.

An outside activity or one that uses resources from nature.



Go outside and model how to make simple large-scale patterns, such as stick, leaf, stick, leaf, stick, leaf.



Support children to copy the patterns and see if they can continue them. Encourage children to use loose parts to make simple patterns for a partner to copy and continue.

An activity that has accompanying teaching slides to support adult-led learning as part of a premium subscription.



Prepare a set of dot plates or number cards which have 1, 2 or 3 dots in different arrangements.



Hold up the dot plates and ask the children how many dots.
Can children show the correct number of fingers?
Ask children if they can match the numerals 1, 2 and 3 to the dot plates.

A digging deeper activity to deepen children's understanding is provided for each small step.



Wrap up a range of boxes, each with a different mass. Ensure that some of the small boxes are heavy and some of the large boxes are light.

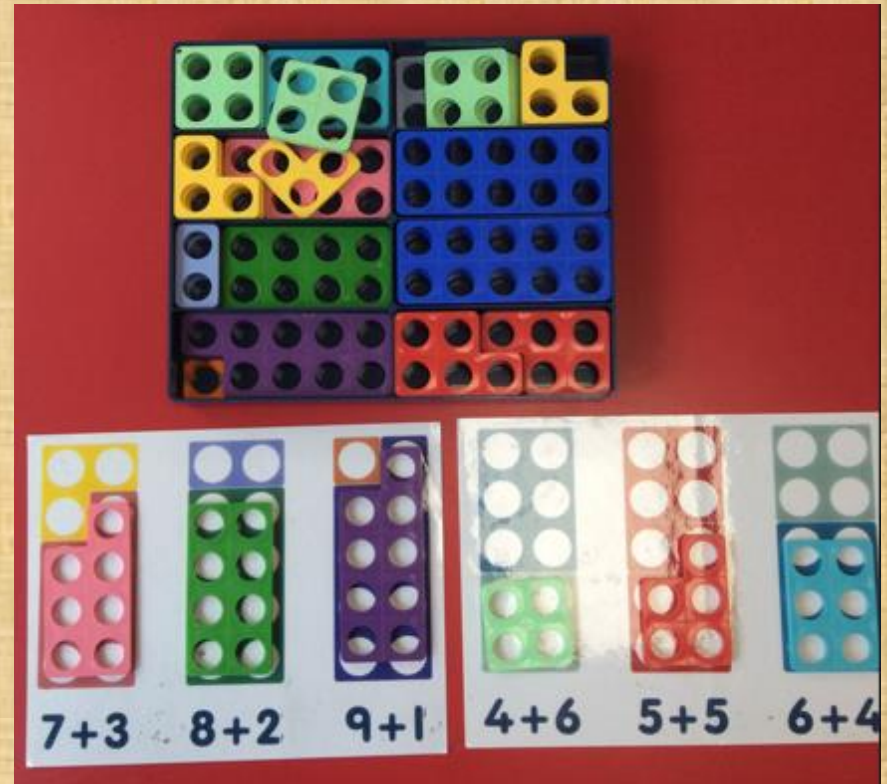
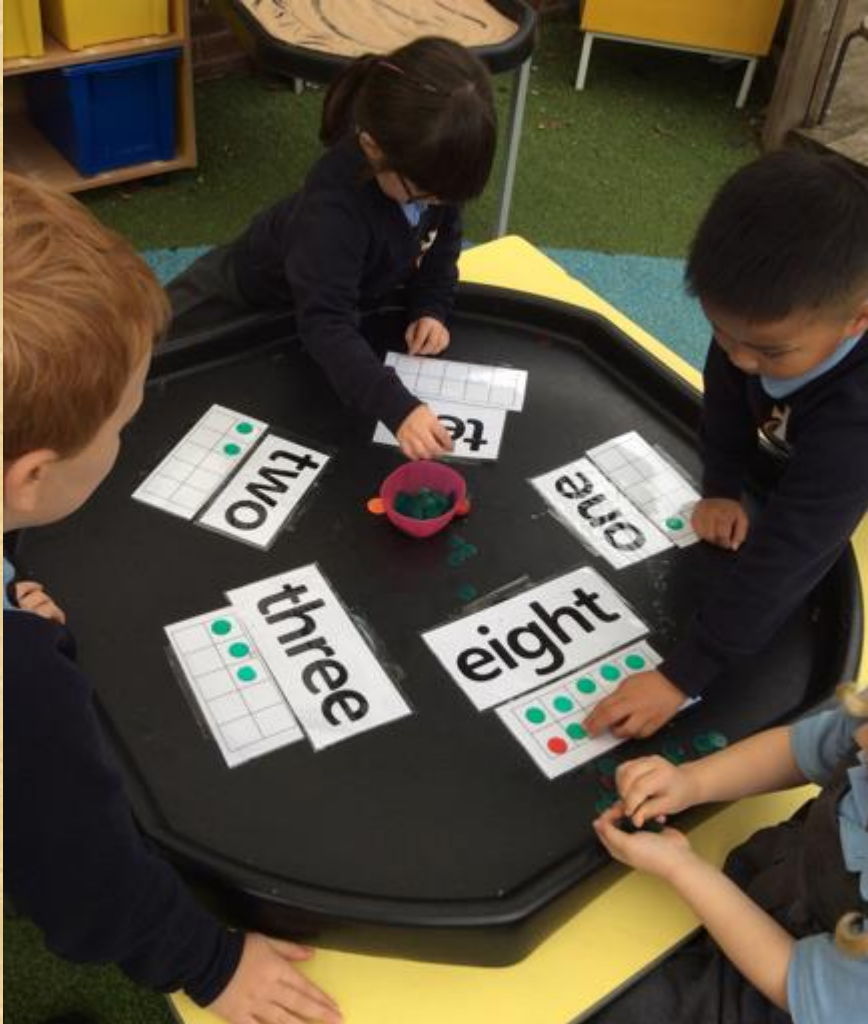
Pick up a box and ask children to predict if it will be heavy or light.

Ask them to test their predictions using a balance scale.

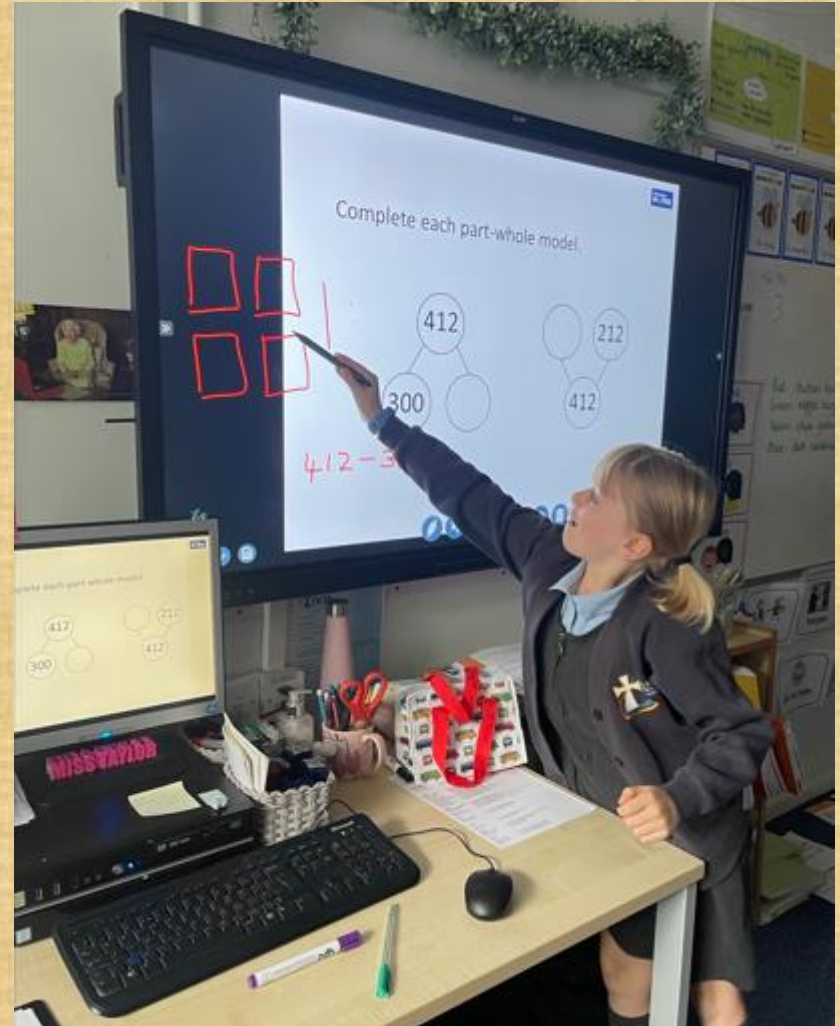


Are all small boxes light?

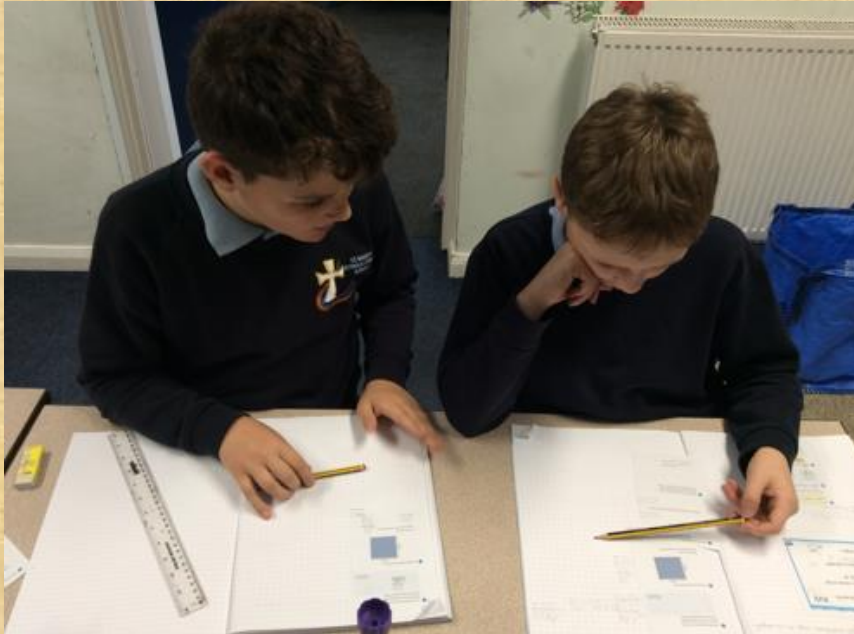
A snap-shot of Maths across St Mary's



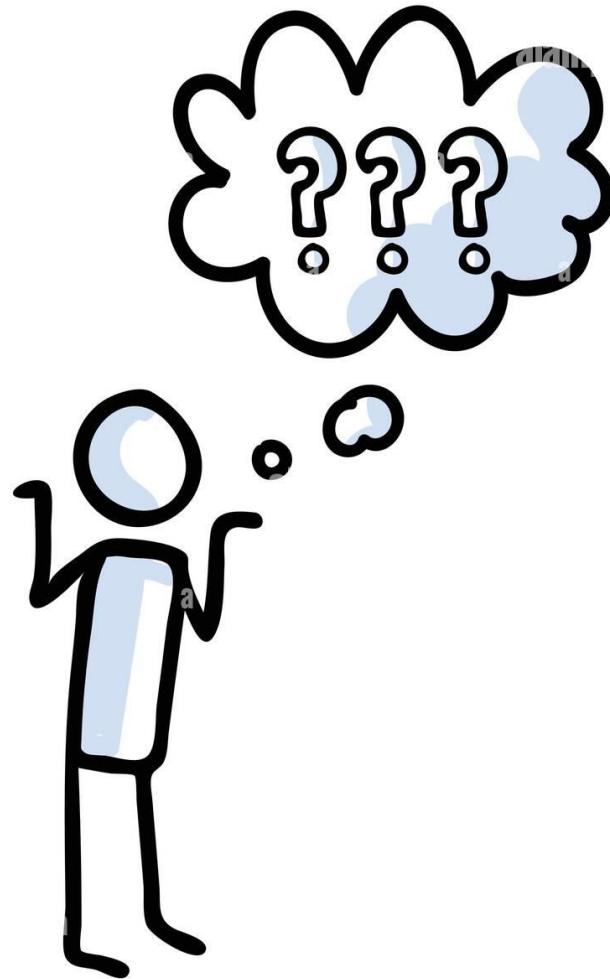
A snap-shot of Maths across St Mary's



A snap-shot of Maths across St Mary's



Questions



Long term plan – Year 1

Autumn term	<p>Number</p> <p>Place value (within 10)</p> <p>VIEW</p>	<p>Number</p> <p>Addition and subtraction (within 10)</p> <p>VIEW</p>		<p>Geometry Shape</p> <p>VIEW</p>	Consolidation		
Spring term	<p>Number</p> <p>Place value (within 20)</p> <p>VIEW</p>	<p>Number</p> <p>Addition and subtraction (within 20)</p> <p>VIEW</p>	<p>Number</p> <p>Place value (within 50)</p> <p>VIEW</p>	<p>Measurement</p> <p>Length and height</p> <p>VIEW</p>	<p>Measurement</p> <p>Mass and volume</p> <p>VIEW</p>		
Summer term	<p>Number</p> <p>Multiplication and division</p> <p>VIEW</p>	<p>Number</p> <p>Fractions</p> <p>VIEW</p>	<p>Geometry Position and direction</p> <p>VIEW</p>	<p>Number</p> <p>Place value (within 100)</p> <p>VIEW</p>	<p>Measurement Money</p> <p>VIEW</p>	<p>Measurement</p> <p>Time</p> <p>VIEW</p>	Consolidation

Long term plan – Year 2

Autumn term	<p>Number</p> <p>Place value</p> <p>VIEW</p>	<p>Number</p> <p>Addition and subtraction</p> <p>VIEW</p>	<p>Geometry</p> <p>Shape</p> <p>VIEW</p>		
Spring term	<p>Measurement</p> <p>Money</p> <p>VIEW</p>	<p>Number</p> <p>Multiplication and division</p> <p>VIEW</p>	<p>Measurement</p> <p>Length and height</p> <p>VIEW</p>	<p>Measurement</p> <p>Mass, capacity and temperature</p> <p>VIEW</p>	
Summer term	<p>Number</p> <p>Fractions</p> <p>VIEW</p>	<p>Measurement</p> <p>Time</p> <p>VIEW</p>	<p>Statistics</p> <p>VIEW</p>	<p>Geometry</p> <p>Position and direction</p> <p>VIEW</p>	<p>Consolidation</p>

Long term plan – Year 3

Autumn term	<p>Number</p> <p>Place value</p> <p>VIEW</p>	<p>Number</p> <p>Addition and subtraction</p> <p>VIEW</p>	<p>Number</p> <p>Multiplication and division A</p> <p>VIEW</p>			
Spring term	<p>Number</p> <p>Multiplication and division B</p> <p>VIEW</p>	<p>Measurement</p> <p>Length and perimeter</p> <p>VIEW</p>	<p>Number</p> <p>Fractions A</p> <p>VIEW</p>	<p>Measurement</p> <p>Mass and capacity</p> <p>VIEW</p>		
Summer term	<p>Number</p> <p>Fractions B</p> <p>VIEW</p>	<p>Measurement</p> <p>Money</p> <p>VIEW</p>	<p>Measurement</p> <p>Time</p> <p>VIEW</p>	<p>Geometry</p> <p>Shape</p> <p>VIEW</p>	<p>Statistics</p> <p>VIEW</p>	<p>Consolidation</p>

Long term plan – Year 4

Autumn term	<p>Number</p> <p>Place value</p> <p>VIEW</p>	<p>Number</p> <p>Addition and subtraction</p> <p>VIEW</p>	<p>Measurement</p> <p>Area</p> <p>VIEW</p>	<p>Number</p> <p>Multiplication and division A</p> <p>VIEW</p>	<p>Consolidation</p>		
Spring term	<p>Number</p> <p>Multiplication and division B</p> <p>VIEW</p>	<p>Measurement</p> <p>Length and perimeter</p> <p>VIEW</p>	<p>Number</p> <p>Fractions</p> <p>VIEW</p>	<p>Number</p> <p>Decimals A</p> <p>VIEW</p>			
Summer term	<p>Number</p> <p>Decimals B</p> <p>VIEW</p>	<p>Measurement</p> <p>Money</p> <p>VIEW</p>	<p>Measurement</p> <p>Time</p> <p>VIEW</p>	<p>Consolidation</p>	<p>Geometry</p> <p>Shape</p> <p>VIEW</p>	<p>Statistics</p> <p>VIEW</p>	<p>Geometry</p> <p>Position and direction</p> <p>VIEW</p>

Long term plan – Year 5

Autumn term	<p>Number</p> <p>Place value</p> <p>VIEW</p>	<p>Number</p> <p>Addition and subtraction</p> <p>VIEW</p>	<p>Number</p> <p>Multiplication and division A</p> <p>VIEW</p>	<p>Number</p> <p>Fractions A</p> <p>VIEW</p>		
Spring term	<p>Number</p> <p>Multiplication and division B</p> <p>VIEW</p>	<p>Number</p> <p>Fractions B</p> <p>VIEW</p>	<p>Number</p> <p>Decimals and percentages</p> <p>VIEW</p>	<p>Measurement</p> <p>Perimeter and area</p> <p>VIEW</p>	<p>Statistics</p> <p>VIEW</p>	
Summer term	<p>Geometry</p> <p>Shape</p> <p>VIEW</p>	<p>Geometry</p> <p>Position and direction</p> <p>VIEW</p>	<p>Number</p> <p>Decimals</p> <p>VIEW</p>	<p>Number</p> <p>Negative numbers</p> <p>VIEW</p>	<p>Measurement</p> <p>Converting units</p> <p>VIEW</p>	<p>Measurement</p> <p>Volume</p> <p>VIEW</p>

Long term plan – Year 6

Autumn term	<p>Number</p> <p>Place value</p> <p>VIEW</p>	<p>Number</p> <p>Addition, subtraction, multiplication and division</p> <p>VIEW</p>	<p>Number</p> <p>Fractions A</p> <p>VIEW</p>	<p>Number</p> <p>Fractions B</p> <p>VIEW</p>	<p>Measurement</p> <p>Converting units</p> <p>VIEW</p>	
Spring term	<p>Number</p> <p>Ratio</p> <p>VIEW</p>	<p>Number</p> <p>Algebra</p> <p>VIEW</p>	<p>Number</p> <p>Decimals</p> <p>VIEW</p>	<p>Number</p> <p>Fractions decimals and percentages</p> <p>VIEW</p>	<p>Measurement</p> <p>Area, perimeter and volume</p> <p>VIEW</p>	<p>Statistics</p> <p>VIEW</p>
Summer term	<p>Geometry</p> <p>Shape</p> <p>VIEW</p>	<p>Geometry</p> <p>Position and direction</p> <p>VIEW</p>	<p>Themed projects, consolidation and problem solving</p> <p>VIEW</p>			