St Barnabas' CE Primary School & Nursery

Parent Maths Workshop

October 2022

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How we teach Maths at St. Barnabas'

- We follow the National Curriculum
- White Rose R - Y6
- Big Maths Beat that R -Y6
- EYFS: Development Matters
- Outdoor learning area in EYFS - hands-on outdoor Maths

EYFS

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1007446/6.7534_DfE_Development_Matters_Report_and_illustrations_web__2_.pdf

New educational programme under 7 areas of learning:

By providing **frequent and varied** opportunities to build and apply this understanding - such as using **manipulatives**, including **small pebbles** and **tens frames** for organising counting - children will develop a **secure base of knowledge and vocabulary** from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for our pupils to develop their **spatial reasoning skills** across all areas of mathematics including **shape, space and measures**. It is important that our pupils **develop positive attitudes and interests in mathematics**, **look for patterns and relationships**, **spot connections**, '**have a go'**, **talk** to adults and peers about what they notice and not be afraid to make mistakes.

New: Number ELG - By the end of EYFS (Reception)

By the end of EYFS (end of Reception), children at the **expected level** of development will:

• Have a **deep understanding of number to 10,** including the **composition** of each number;

• **Subitise** (recognise quantities without counting) **up to 5**;

• **Automatically recall** (without reference to rhymes, counting or other aids) **number bonds up to 5** (including subtraction facts) and some **number bonds to 10**, **including double facts**.

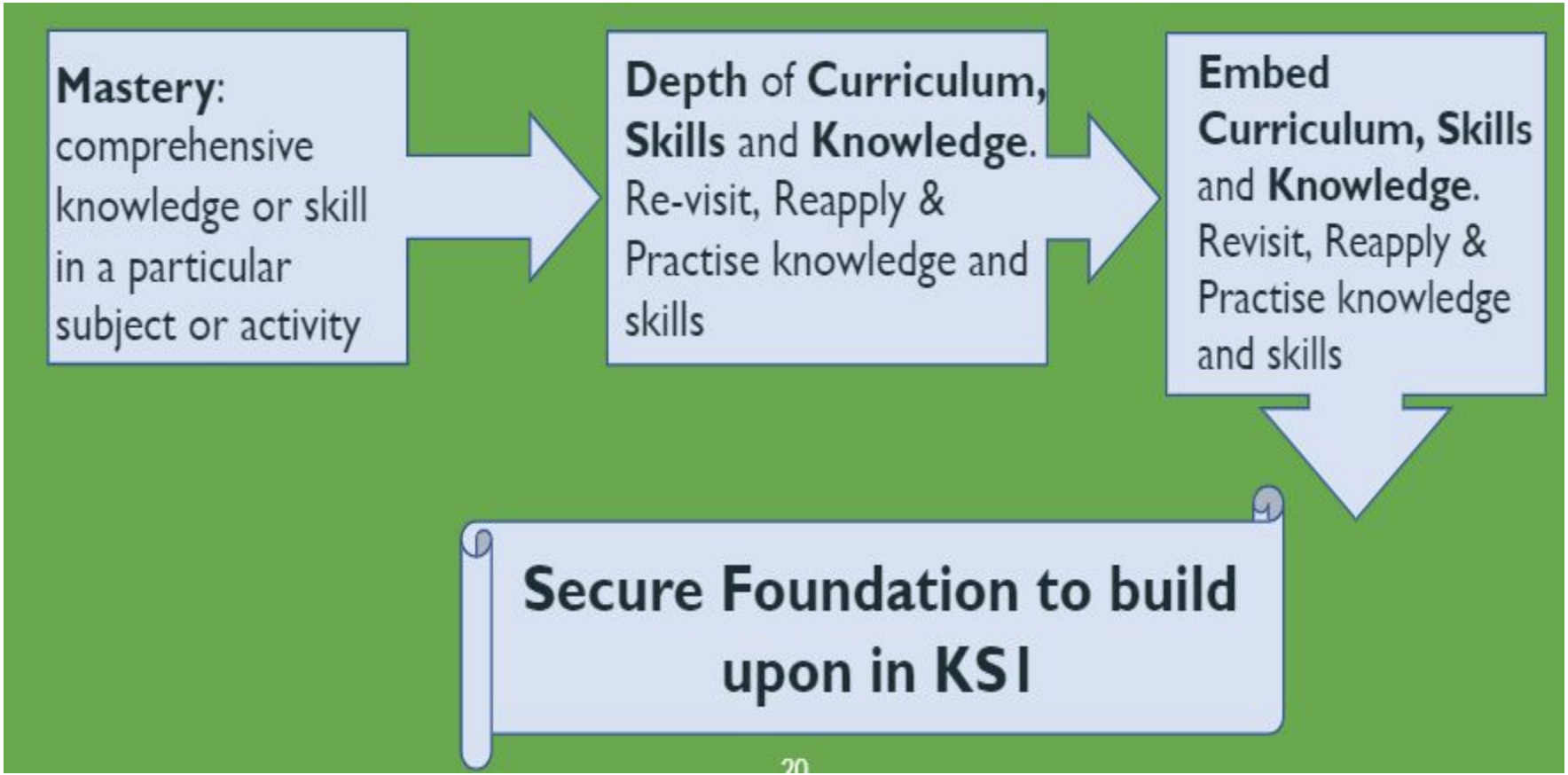
New: Numerical Patterns ELG

By the end of EYFS (end of Reception), children at the **expected level** of development will:

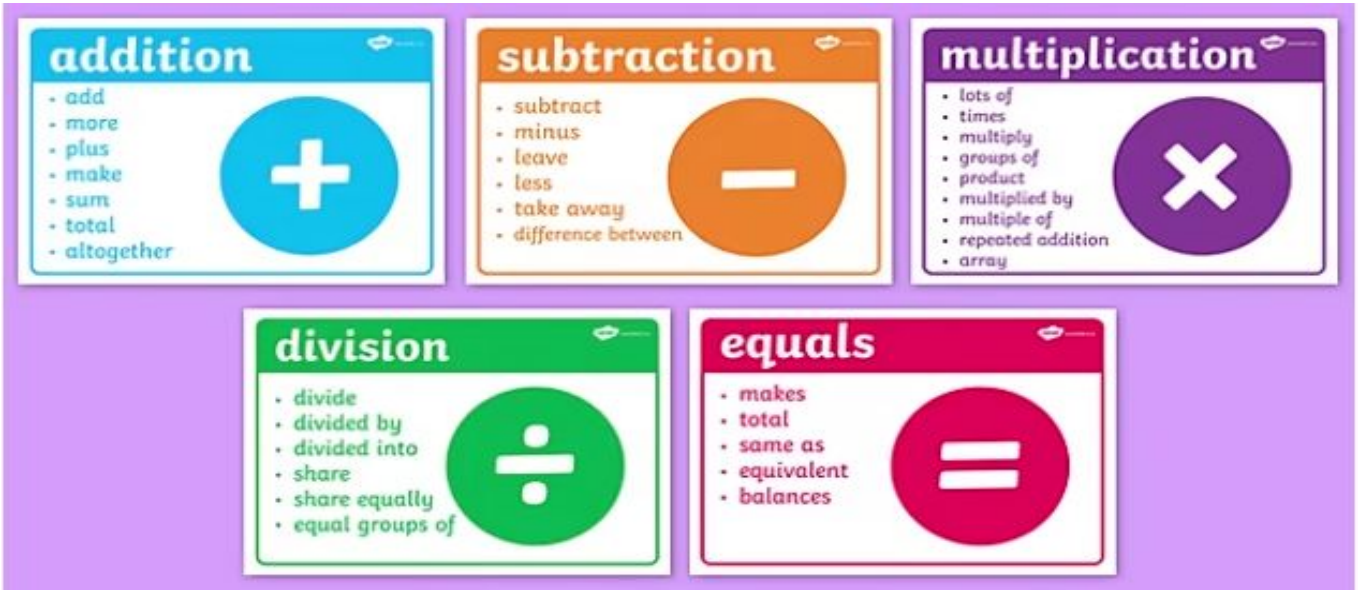
- Verbally count beyond **20**, recognising the **pattern** of the counting system;

- **Compare** quantities up to 10 in different contexts, recognising when one quantity is **greater than**, **less than** or the **same as** the other quantity;

- Explore and represent **patterns** within numbers up to 10, including **even** and **odds**, **double facts** and how quantities can be **distributed equally (early division)**.


Mastery: comprehensive knowledge or skill in a particular subject or activity
Depth of **Curriculum, Skills** and **Knowledge**. Re-visit, Reapply & Practise knowledge and skills
Embed Curriculum, Skills and **Knowledge**. Revisit, Reapply & Practise knowledge and skills
Secure Foundation to build upon in KS1

Focus on mathematical language and vocabulary



What is the sum?

How many are left?

If I take away 2 tens how many ones are left?

Maths skills progression map Nursery - Year 6

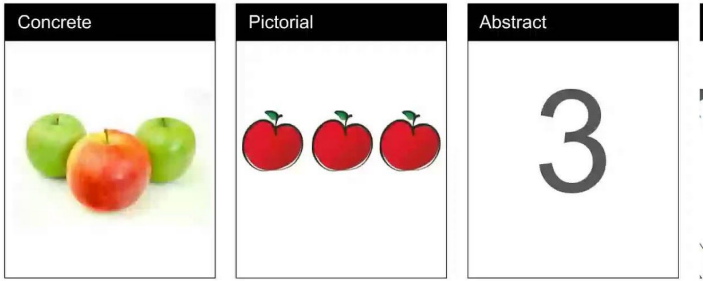
		Nursery EYFS Statutory Framework	Reception EYFS Statutory Framework Termly overview	Year 1 Lesson by lesson overview for the whole year	Year 2 Lesson by lesson overview for the whole year	Year 3 Lesson by lesson overview for the whole year	Year 4 Lesson by lesson overview for the whole year	Year 5 Lesson by lesson overview for the whole year	Year 6 Lesson by lesson overview for the whole year
Place value	Counting	-Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). -Recite numbers past 5. -Say one number for each item in order: 1,2,3,4,5. - Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). -Count objects, actions and sounds.	-I can count objects actions and sounds to 10 -I can count beyond ten. -I can link the numeral with the cardinal number. -I can use a number line.	- Count **to and across 100**, forwards, beginning with 0 or 1, or from any given number. -Count numbers to 100 in numerals; count in multiples of 2s, 5s and 10s. *Autumn 1* *Autumn 4* *Spring 2* *Summer 4*	-Counting in steps of **2, 3 and 5** from 0 and in 10s from any number, forward and backward *Autumn 1*	-Count from 0 in multiples of **4, 8, 50 and 100**; find 10 or 100 more or less than a given number *Autumn 1* *Autumn 3*	-Count in **6, 7, 9, 25 and 1000** -Count backwards through zero to include **negative** numbers *Autumn 1*	-Count forwards or backwards in steps of powers of 10 for any given number **up to 1 000 000** -Count forwards and backwards with **positive and negative** whole numbers, including through zero *Autumn 1*	-read, write, (order and compare) numbers up to 10 000 000 and determine the value of each digit *Autumn 1*

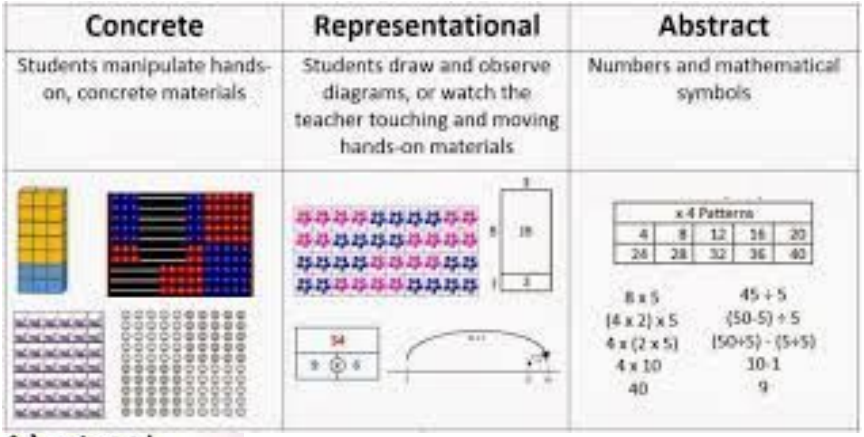
White Rose Maths

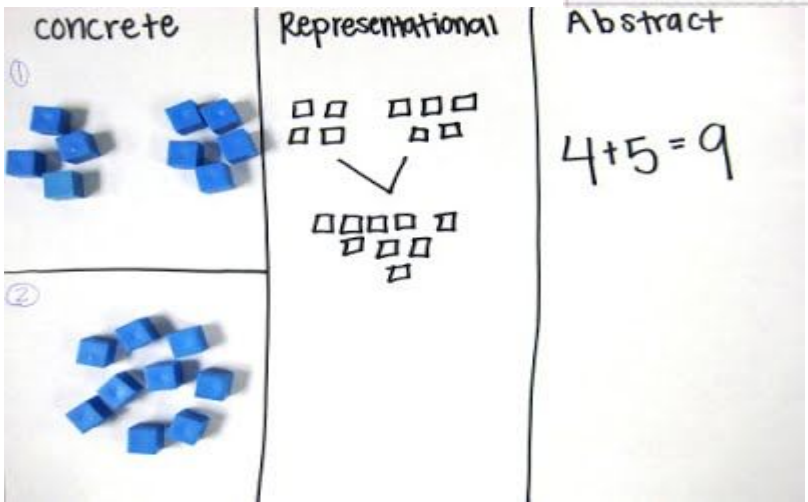
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value			Number: Addition and Subtraction					Number: Multiplication and Division			
Spring	Number: Multiplication and Division			Measurement: Money	Statistics		Measurement: Length and Perimeter			Number: Fractions		Consolidation
Summer	Number: Fractions			Measurement: Time			Geometry: Properties of Shape		Measurement: Mass and Capacity			Consolidation

Pictorial, abstract and concrete

Concrete, Pictorial, Abstract







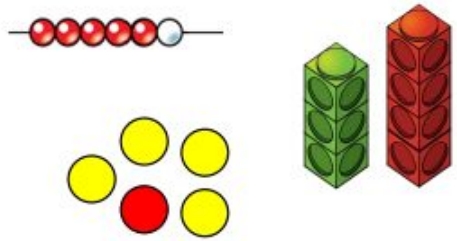
Mastering the curriculum

I can count to 10.

- Can you do it with missing numbers?
- Can you do the inverse to check the answer?
- How can you represent this in different ways?
- Can you solve it in a word problem?
- Can you explain why 5 + 5 equals 10?
- Can you count on from/back from a number?
- Can you count in 2s, 5s to 10?

Challenges to show mastery

Year 1



_____ + _____ = 6

Which of the images could help to complete the number sentence? Explain why.

Can you think of a number sentence for each of the other two images?

Year 3

True or False?

These four calculations have the same answer.

1 + 4 + 2	4 + 2 + 1
2 + 4 + 1	4 + 1 + 2

These four calculations have the same answer.

7 – 3 – 2	2 – 3 – 7
3 – 2 – 7	7 – 2 – 3

1)Prove why you are correct:
2) Why is 3-2-7 wrong?
3) What rule can you think of for addition and subtraction?

Year 6

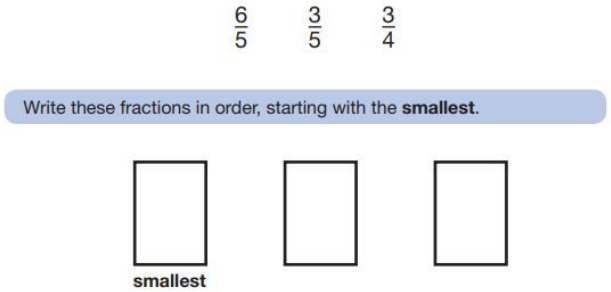
Work out the missing numbers.

	?	4	?	3	?
+	2	?	5	?	2
	7	8	5	2	9

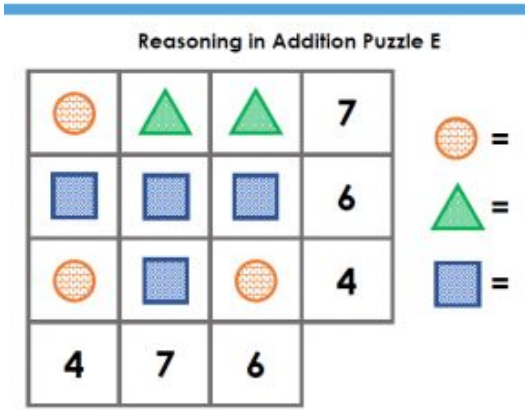
1)How did you find the missing numbers?
2)How can you prove your answer?
3) Why will the H column <u>not</u> say 0?

Reasoning examples

When you count in 5s, will you say 57?
No, **because** when I count in 5s my numbers will end int 5 and 0. 57 ends in 7 and this is not part of the 5 times table.



How do you know you are correct?
Explain using mathematical vocabulary.



What is each symbol worth? How can you check your Answer? Can you now make your own?

Big Maths Beat That - supports times tables, number bonds, mental maths, division etc

Name:

My 'Beat That' score was...

BIG MATHS... BEAT THAT!

Total Recall 3 - 90 seconds

4+9=	7x5=	6+7=	8+9=	4+7=
3x5=	7+8=	8x5=	9x10=	6x10=
9x2=	5x5=	5+9=	5+8=	5+7=
6+9=	5x10=	2x2=	3+9=	4x5=
9x5=	8x2=	4x10=	2x5=	6+8=
2x10=	7x10=	7+9=	7x2=	8x10=
6x2=	4x2=	3x2=	5x2=	6x5=
5+4=	3x10=	3+8=	5+6=	4+8=

Name:

My 'Beat That' score was...

BIG MATHS... BEAT THAT!

Year 5 & 6 - 100 seconds

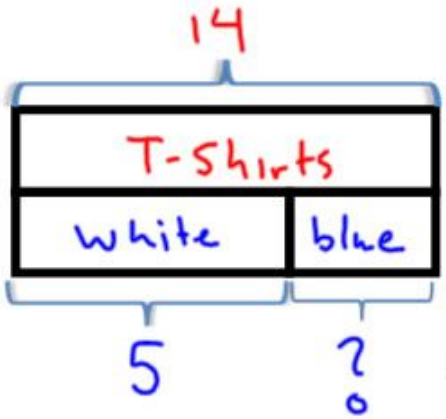
72

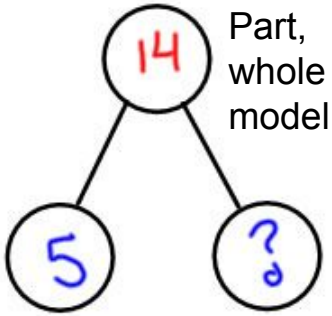
3+2=	6x2=	7+5=	8x2=	8+3=	5+4=	9+4=	4x2=
7+4=	6+6=	9x7=	9+2=	7x2=	5+5=	6x3=	6+4=
7x6=	4x3=	4+4=	8x5=	8+2=	8+4=	9+6=	4x4=
9x9=	4+3=	9+3=	3x3=	5x2=	6+2=	5x5=	8x6=
5+2=	5+3=	2+2=	8+5=	9x5=	9+5=	8+7=	6x5=
6+5=	7x7=	9x6=	6x6=	4+2=	7x5=	9+7=	9x3=
7x3=	7+6=	7+2=	3x2=	9+8=	6+3=	9x4=	5x3=
8x4=	8x3=	9x8=	8x7=	8x8=	7+7=	9x2=	6x4=
3+3=	7+3=	8+6=	8+8=	2x2=	9+9=	5x4=	7x4=

Y5,6 1

Maths equipment and strategies

Bar model





Part, whole model

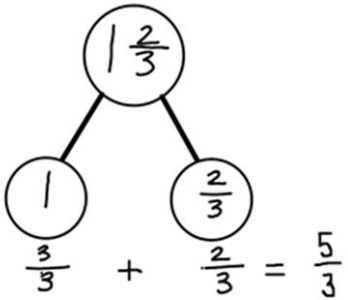
14-5=? 5+?=14

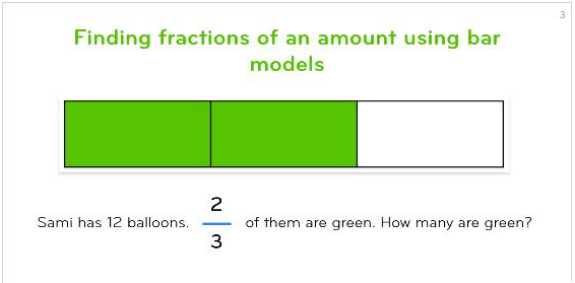
Numicon

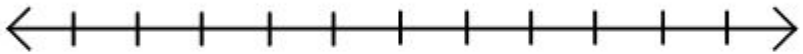
100 square

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	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	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

$1\frac{2}{3} = \frac{5}{3}$

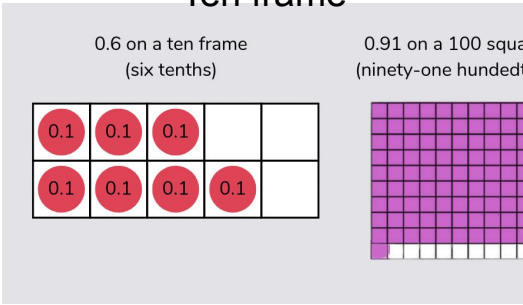






Number line

Ten frame



Real life Maths

- Telling the time
- Working out 20% in the sale
- If I buy two cans for 50p how much money is in total?
- Argos catalogue: How many things can you buy with £10?
- Let’s count all the red cars we see. Let’s count how many wheels are on the bus…
- Baking: 100 g of flour, 250 g of butter…
- Which shapes do you see?
- CBBC starts at 6pm. Now it’s 5:15. How many minutes do you need to wait for your program to start?

Questions

If you think of any questions later, contact the office and I will get back to you. Thank you for attending the maths workshop.

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