ST. MARK'S PRIMARY SCHOOL

COMMUNITY, ACHIEVEMENT, RESPECT, ENJOYMENT

How we teach and learn maths at St. Mark's

Parent presentation

4th November 2022

What will be covered this morning

- The essence of teaching for mastery in maths - what it is and why we teach this way
- What mastery looks like across the school
- What mastery looks like for Years 1 and 2
- What you can do to support at home

The essence of teaching for mastery - what and why

- Everyone can do maths
- If you work hard at maths you can succeed
- Whole class interactive teaching
- **Procedural + conceptual fluency** = deep understanding
- Key facts are learnt to **automaticity**

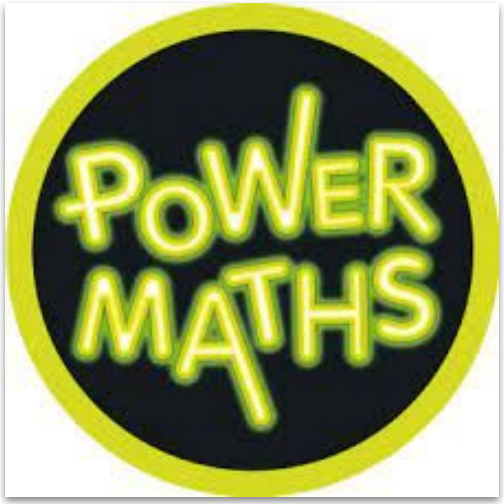
What mastery looks like across the school

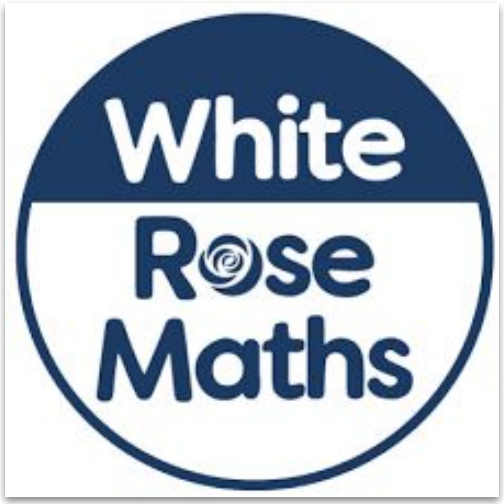
- What is fluency?
- Students' ability to "… provide correct answers quickly … use facts and computation strategies they know to efficiently determine answers that they do not know." (Russell, 2000)
- Three types of fluency: conceptual, procedural and factual

What does this look like for your Year 1 or Year 2 child?

- Develop **confidence and mental fluency with whole numbers,** counting and place value. (15 is made up of 1 ten and 5 ones)
- Recognise, describe, draw, compare and sort different shapes and use the related vocabulary.
- Use a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.
- By the end of year 2, pupils **should know the number bonds to 20** (e.g. 13 + 7 = 20; 4 + 16 = 20, etc)
- Read and spell mathematical vocabulary

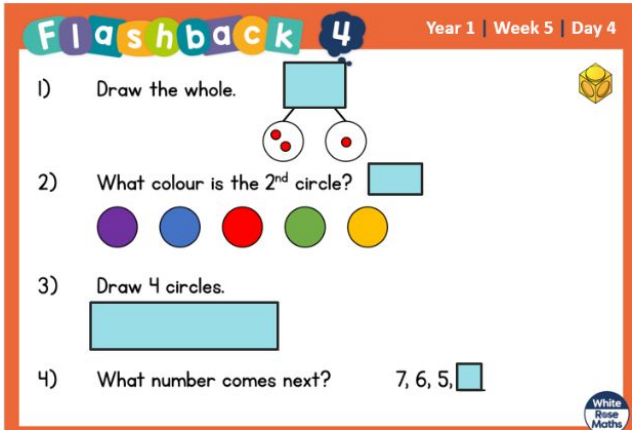
What mastery looks like across the school





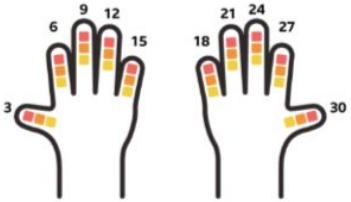
What mastery looks like across the school - current focus

- Number@9
- Quick quizzes
- Number facts practice, times tables practice using chanting, songs, Times Tables Rock Stars



Let's chant our 3's

3 , 6 , 9, 12, 15 , 18, 21 , 24, 27, 30.



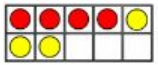
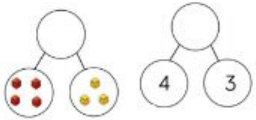
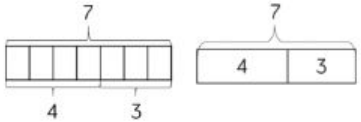
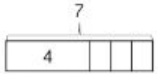
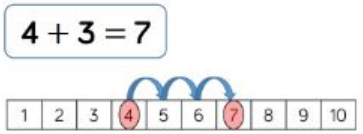
Now, write them down on your whiteboard.

1 x 3 =

2 x 3 =

3 x 3 =

Calculation policy

Year Group	Skill	Representations and Models	Concrete The 'doing' stage	Pictorial The 'seeing' stage	Abstract The 'symbolic' stage
1	Add two 1-digit numbers to 10 (aggregation & augmentation)	Part- whole model Bar model Number shapes	   (support augmentation)	  	

What does this look like for your Year 1 or Year 2 child?

How we use the tens frame

https://www.ictgames.com/mobilePage/tenFrame/index.html

How we use the part-part-whole or ‘cherry’ model

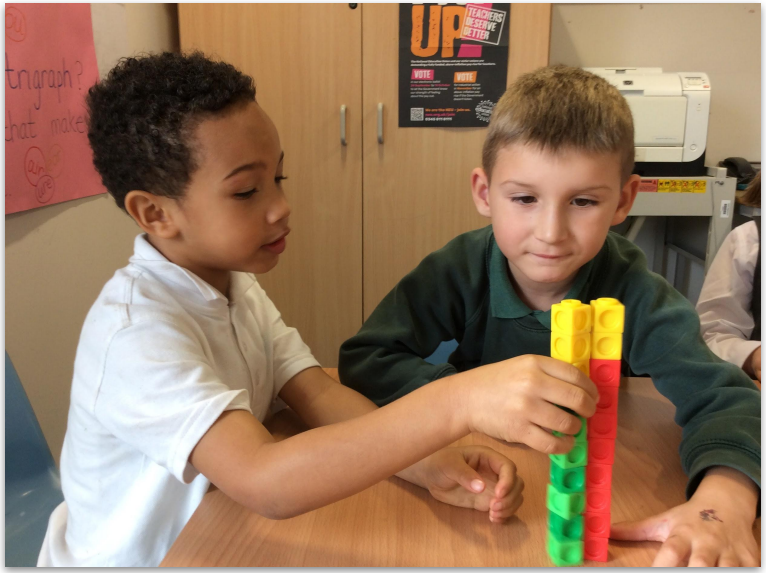
https://www.ictgames.com/mobilePage/partPartWhole/index.html

How we use the bar model

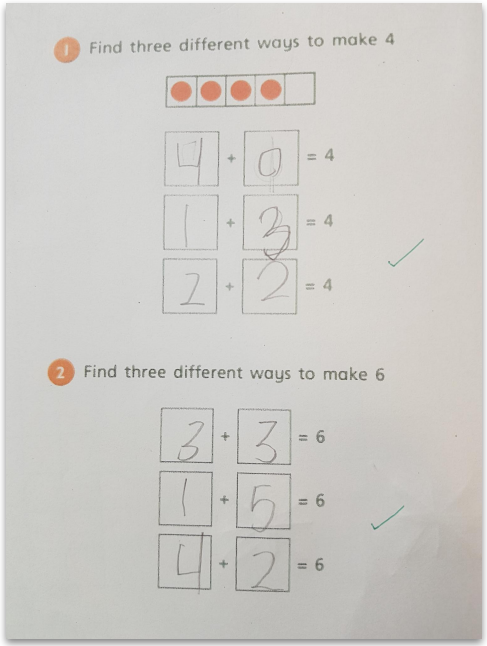
https://www.ictgames.com/mobilePage/fireFly/index.html

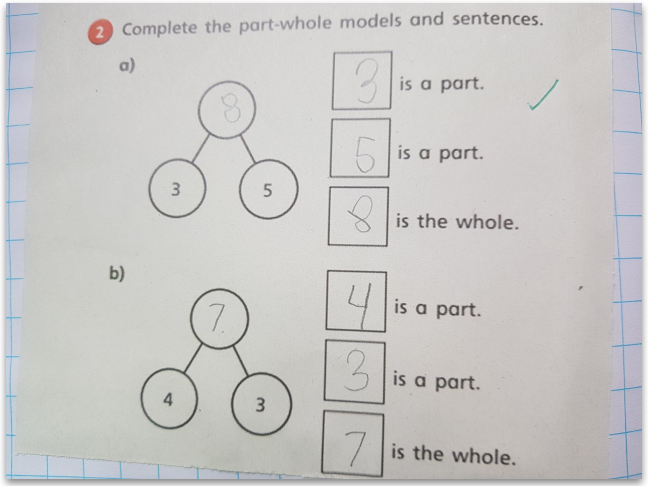
Examples of Year 1 learning

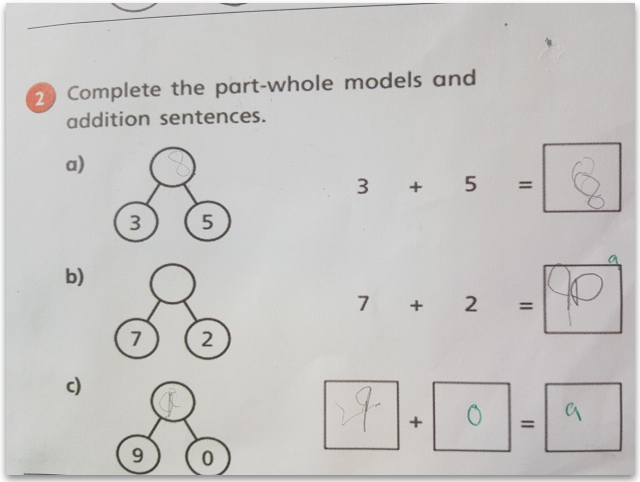
Here are some Year 1 children using multilink cubes to make 10.



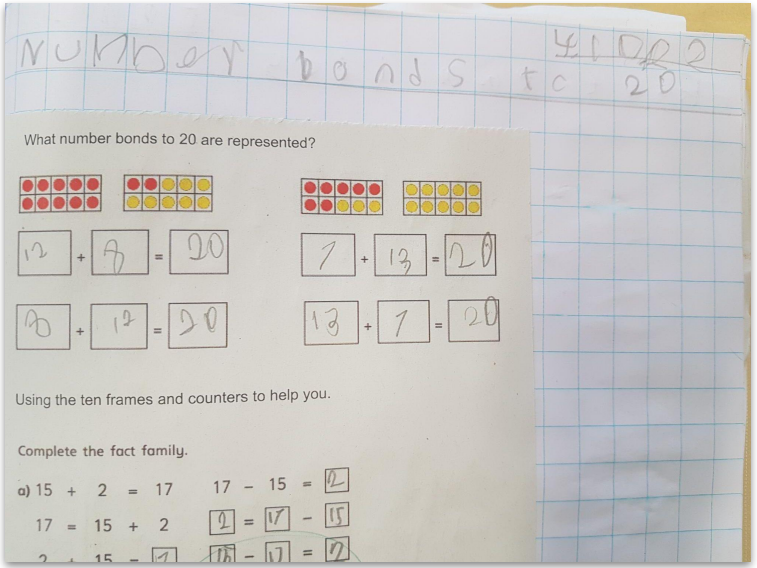
Examples of Year 1 learning

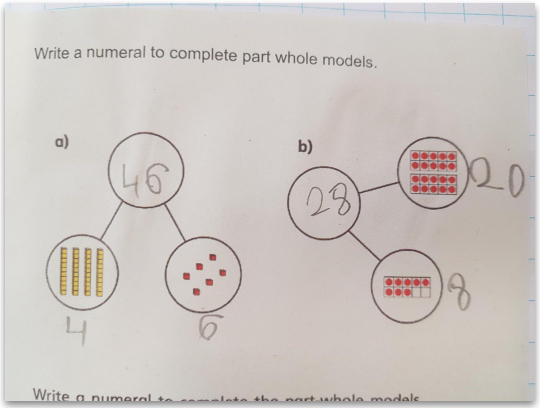


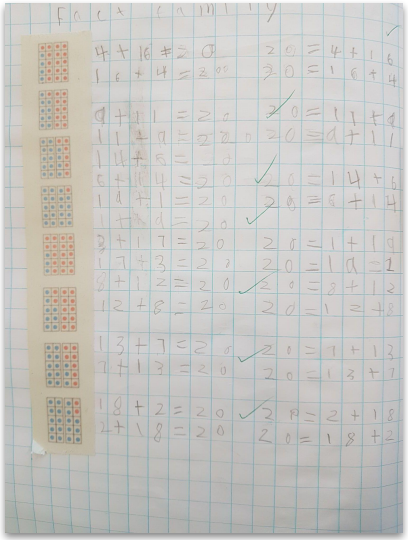




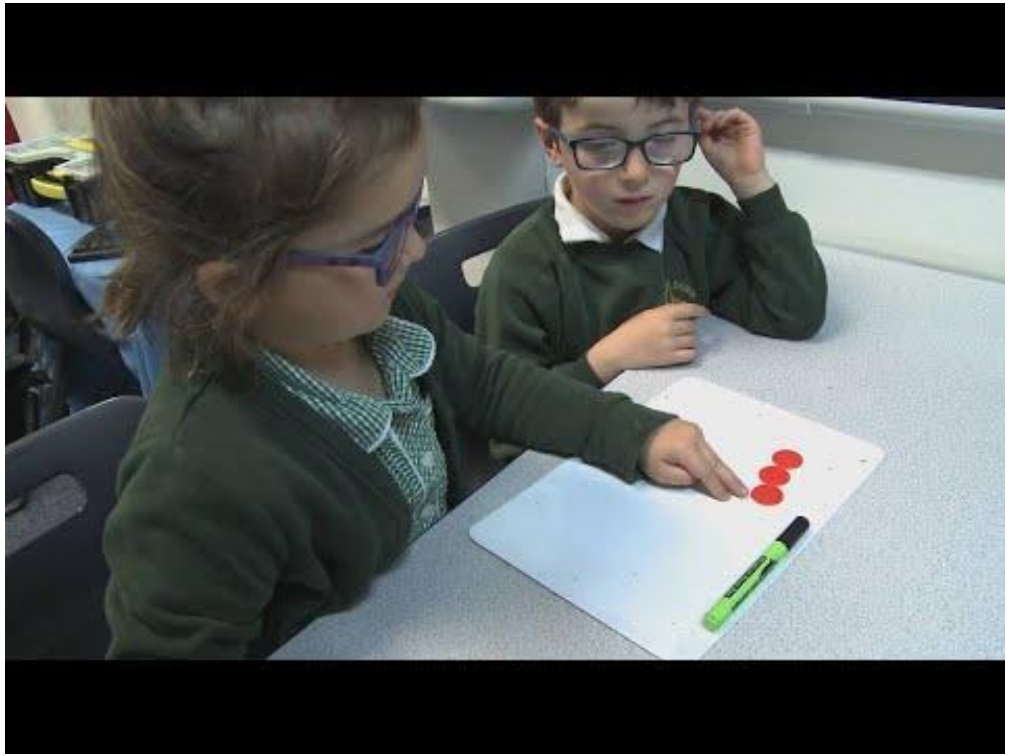
Examples of Year 2 learning





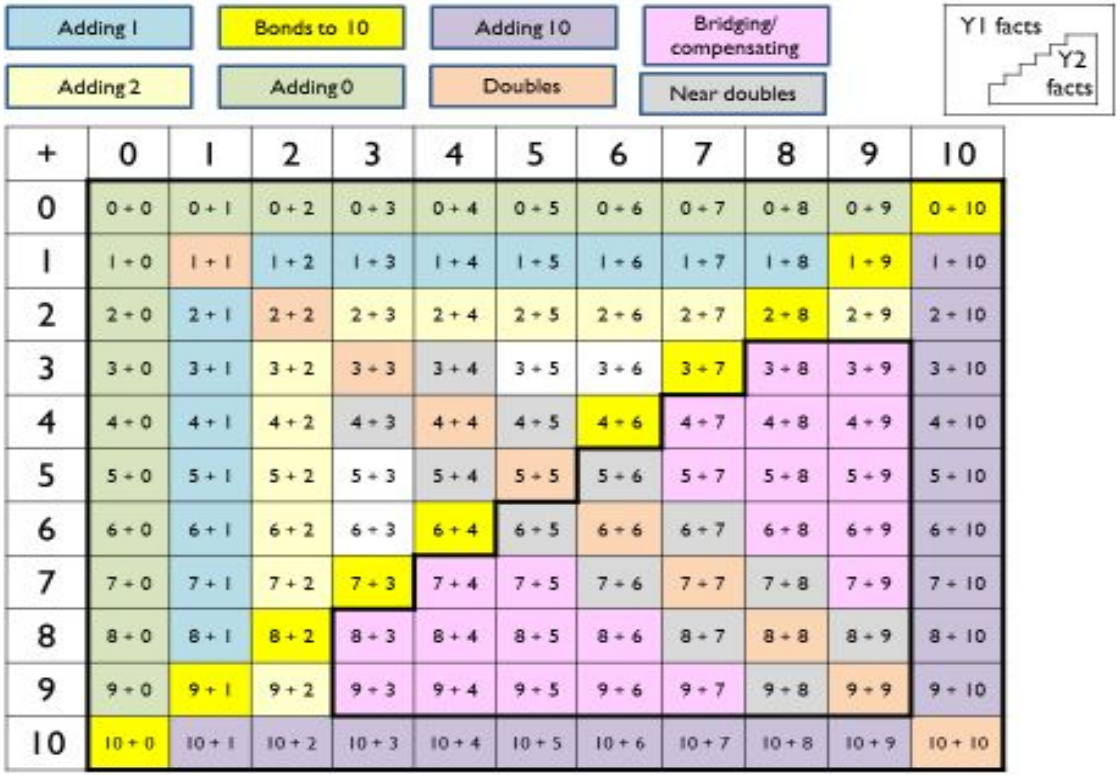


What does this look like for your Year 1 or Year 2 child?



Key facts that your child must learn to automaticity by the end of Year 2

Reducing working memory by having factual recall.



+	0	1	2	3	4	5	6	7	8	9	10
0	0 + 0	0 + 1	0 + 2	0 + 3	0 + 4	0 + 5	0 + 6	0 + 7	0 + 8	0 + 9	0 + 10
1	1 + 0	1 + 1	1 + 2	1 + 3	1 + 4	1 + 5	1 + 6	1 + 7	1 + 8	1 + 9	1 + 10
2	2 + 0	2 + 1	2 + 2	2 + 3	2 + 4	2 + 5	2 + 6	2 + 7	2 + 8	2 + 9	2 + 10
3	3 + 0	3 + 1	3 + 2	3 + 3	3 + 4	3 + 5	3 + 6	3 + 7	3 + 8	3 + 9	3 + 10
4	4 + 0	4 + 1	4 + 2	4 + 3	4 + 4	4 + 5	4 + 6	4 + 7	4 + 8	4 + 9	4 + 10
5	5 + 0	5 + 1	5 + 2	5 + 3	5 + 4	5 + 5	5 + 6	5 + 7	5 + 8	5 + 9	5 + 10
6	6 + 0	6 + 1	6 + 2	6 + 3	6 + 4	6 + 5	6 + 6	6 + 7	6 + 8	6 + 9	6 + 10
7	7 + 0	7 + 1	7 + 2	7 + 3	7 + 4	7 + 5	7 + 6	7 + 7	7 + 8	7 + 9	7 + 10
8	8 + 0	8 + 1	8 + 2	8 + 3	8 + 4	8 + 5	8 + 6	8 + 7	8 + 8	8 + 9	8 + 10
9	9 + 0	9 + 1	9 + 2	9 + 3	9 + 4	9 + 5	9 + 6	9 + 7	9 + 8	9 + 9	9 + 10
10	10 + 0	10 + 1	10 + 2	10 + 3	10 + 4	10 + 5	10 + 6	10 + 7	10 + 8	10 + 9	10 + 10

Is your child ready for Year 2?

Use the numbers, 6, 7, 8, 9 and 10 to complete the set of expressions. You can use a number more than once.

_ > _ _ < _ _ = _

10 + 3 + 4 = _ + 10

19 = _ + 10 + 6

11 = 5 + 1 + _

Is your child ready for Year 3?

68 = __ + __

Complete the equation using the following digits:

2 4 5 3

Can you find another solution?

Find all the different ways to correctly complete this equation. (Clue - there are more than three!)

_2 = 4_ + 4_

Home learning for Years 1 and 2

- Support but don’t do it for them.
- If child is spending more than **20** minutes on their home learning, stop and ask teacher in school.
- **Time** is a skill that especially needs to be practised as much as possible at both school and home.

Home learning for Year 1

There are two play modes in NumBots that serve different purposes.

1. Story Mode for Understanding In Story Mode

2. Challenge Mode

Home learning for Year 2

Focus: 2x, 5x and 10x tables and the related division facts

Thank you