



St Paul's C of E
Primary
School

KS1 Maths
Parents
Meeting

The 2014
National
Curriculum for
Maths aims to
ensure that all
children:

Become fluent in the
fundamentals of Mathematics

Are able to reason
mathematically

Can solve problems by
applying their Mathematics

At St Paul's
we also aim
to ensure
that all
children:



Enjoy maths



Experience success



Become confident in their ability to use and apply their mathematical skills and knowledge in a range of contexts

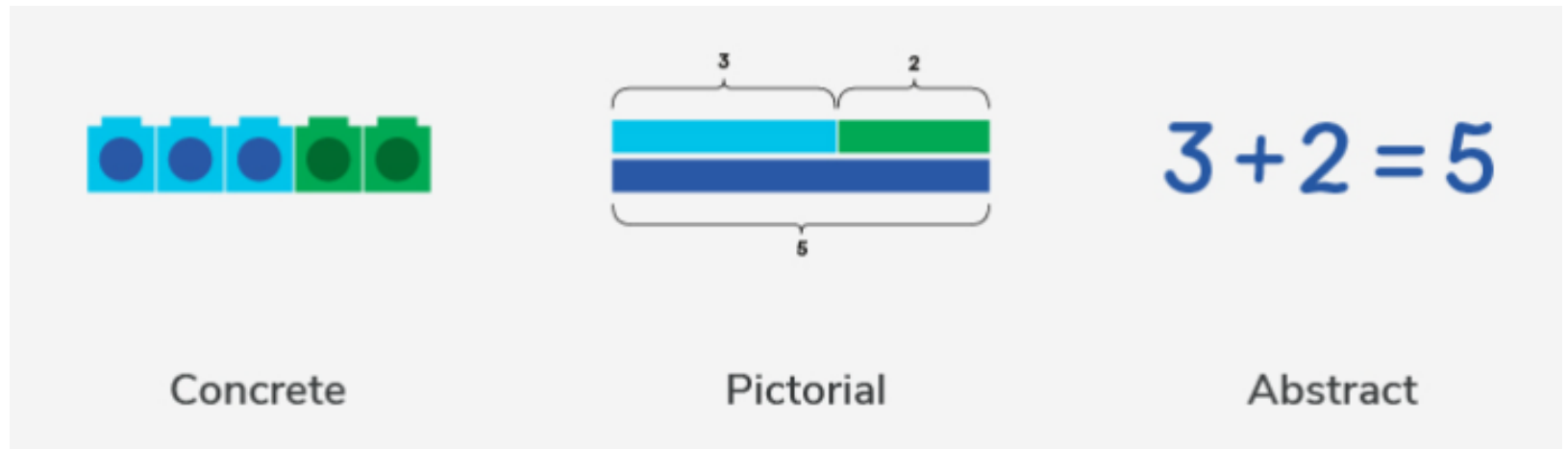


Recognise the importance and relevance of Maths in the wider world



Develop mathematical resilience

Children learn new concepts through the concrete, pictorial, abstract approach.

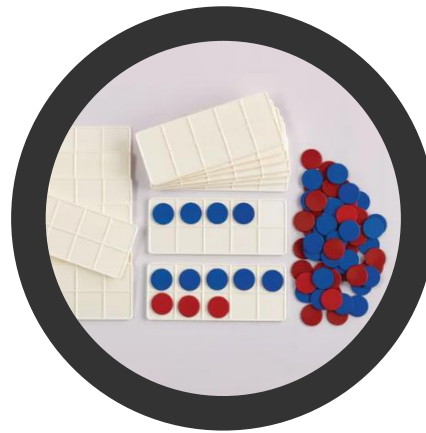


Reinforcement is achieved by going back and forth between these representations.

Concrete Representation

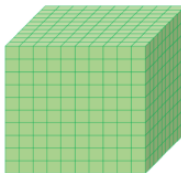
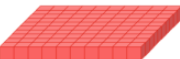
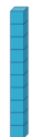
A pupil is first introduced to an idea or a skill by acting it out with real objects (manipulatives).

This is a 'hands on' component using real objects and it is the foundation for conceptual understanding.



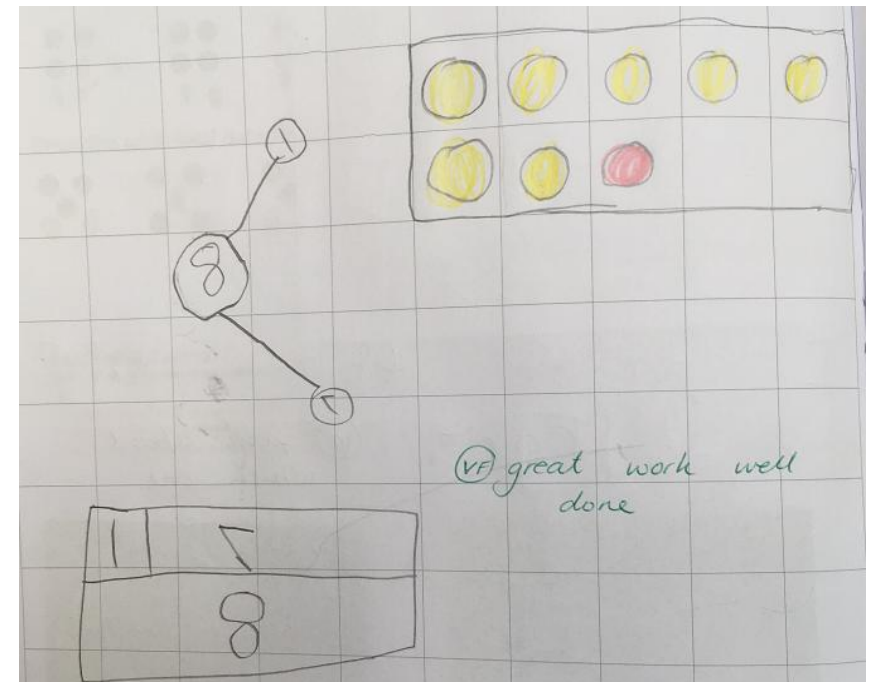
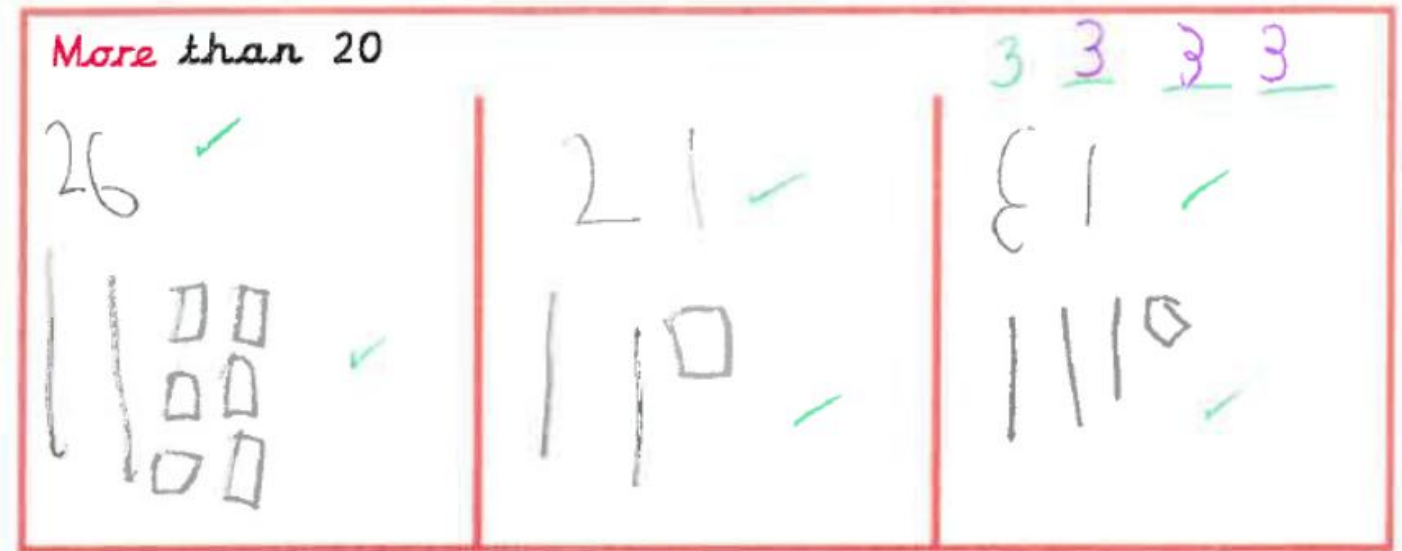
Pictorial Representation

A pupil has sufficiently understood the hands-on experiences performed and can now relate them to representations, such as a diagram or picture of the problem.

Thousands	Hundreds	Tens	Units/Ones
			
1000	100	10	1

www.mathswithmum.com

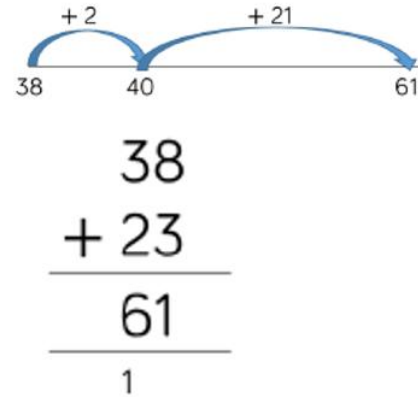
L.O: To identify and represent numbers between 0-100.



Abstract Representation

A pupil is now capable of representing problems by using numbers and mathematical notation.

$$38 + 23 = 61$$



$$245 \times 4 = 980$$

	H	T	O
	2	4	5
x			4
	9	8	0
	1	2	

$$435 - 273 = 162$$

$$\begin{array}{r} \overset{3}{\cancel{4}}\overset{1}{3}5 \\ - 273 \\ \hline 162 \\ \hline \end{array}$$

$$52 \div 4 = 13$$

		1	3	
	4	5	12	

Link to St Paul's C of E Calculation Methods



St Paul's C of E Primary School Calculation Methods



At St Paul's C of E Primary School, we teach children to develop conceptual understanding through the progression of concrete, pictorial and abstract methods.

Children develop an understanding of a mathematical concept through the three steps of concrete, pictorial and abstract.

Reinforcement is achieved by going back and forth between these representations.

Concrete representation: a pupil is first introduced to an idea or a skill by acting it out with real objects (manipulatives). This is a 'hands on' component using real objects and it is the foundation for conceptual understanding.

Pictorial representation: a pupil has sufficiently understood the hands-on experiences performed and can now relate them to representations, such as a diagram or picture of the problem.

Abstract representation: a pupil is now capable of representing problems by using mathematical notation, for example: $12 \div 2 = 6$.



ADDITION			
Year	Skill & Strategy	Concrete & Pictorial	Abstract
1	Add two 1-digit numbers to 10 When adding numbers to 10, children will explore both counting how many objects there are altogether (aggregation) and starting at the bigger number and counting on (augmentation). <i>7 is the whole; 4 is a part and 3 is a part.</i> <i>The whole is 7 and one part is 3 so the other part must be 4</i>		$4 + 3 = 7$
1/2	Add 1 and 2-digit numbers to 20 When adding one-digit numbers that cross 10, children will use manipulatives to represent ten ones equalling one ten. <i>I know that 8 plus 7 is equal to 15.</i>		$8 + 7 = 15$

<https://www.saintpaulsschool.org.uk/calculations-methods/>

What can you
do at home to
support your
child's learning?

Key Instant Recall Facts (KIRFs)

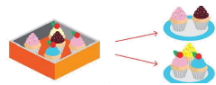
- Instant recall of facts helps enormously with mental agility in mathematics; when children move onto written calculations and abstract methods, knowing these key facts is crucial.
- For children to develop rapid recall of these facts, they need to be practised frequently and in short bursts.
- Each year group has been allocated six key facts to focus on throughout the year.

Link to half termly year group KIRFs on school website:
<https://stpaulswarwick.secure-primariesite.net/key-instant-recall-facts/>

KIRF: I know number bonds to 5

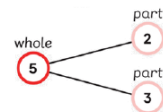
Number bonds show us how numbers join together. They are very important for addition and subtraction. This half term, the children will be learning number bonds that make 5; they should be able to recall these independently.

Concrete:



What can this look like?

Pictorial:



Abstract:

2 and 3 make 5

$$2 + 3 = 5$$

$$5 - 2 = 3$$

Questions to ask at home

What do we need to **add** to 4 to make 5?

If I have 1, how **many more** do I need to get to 5?

What is the **difference** between 5 and 3?

Key vocabulary

What is 3 **add** 2?

What is 4 **plus** 1?

What is 5 **take away** 4?

What is 1 **less than** 5?

Things to try

Everyday Objects- Gather together 5 objects and separate them in as many different ways as possible, write the calculation to match each one.

Bubble numbers- Write the numbers 1-5 on large pieces of paper, shout out a number 1-6 and then ask your child to blow bubbles at the right number to make 5.

Bunny ears- Decide on a number to make. Put your hands on your head as 'ears' and challenge your child to make 5, e.g. show two fingers on one hand and 3 on the other.

Websites:

[Save The Whale: Learn bonds of 10, 9, 8, 7, 6 or 5 \(ictgames.com\)](#)

[Add With Pictures up to 5 Worksheets - Kindergarten Year Maths \(splashlearn.com\)](#)



Maths: Key Instant Recall Facts (KIRFs)



KIRFs (Key Instant Recall Facts) are designed to support the development of the mental fluency skills that underpin much of the mathematics curriculum. Instant recall of facts helps enormously with mental agility in mathematics; when children move onto written calculations and abstract methods, knowing these key facts is crucial.

Each year group is allocated one key fact to focus on per half term.

The key facts will be developed in school, but for children to become more efficient in recalling them easily, they need to be practised frequently and in short bursts at home each week.

Overview

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn 1	I know number bonds to 5	I know number bonds to 20	I know number bonds for each number up to 20	I know number bonds to 100	I can find factor pairs of a number	I can identify common factors of a pair of numbers
Autumn 2	I know number bonds to 10	I know doubles and halves to 20	I know the 3 x table (multiplication & division facts)	I know the 6 and 9 times tables (multiplication & division facts)	I can identify prime numbers up to 20	I can convert between fractions, decimals and percentages
Spring 1	I can recognise numbers to 50	I know the 2x table	I know the 4 x table (multiplication & division facts)	I know the 7 and 11 times tables (multiplication & division facts)	I can recognise equivalent fractions and decimals	I can find a fraction of an amount
Spring 2	I know doubles and halves to 10	I know the 10 x table	I know the 8 x table (multiplication & division facts)	I know all times table facts up to 12 x 12	I know decimal number bonds to 1 and 10	I can find a percentage of an amount
Summer 1	I know facts within 10	I know the 5 x table	I can recall facts about durations of time	I can multiply a single digit by 10 and 100	I can recall metric measure conversions	
Summer 2	I can tell the time to the nearest half an hour	I can tell the time to the nearest 5 minutes	I can tell the time to the nearest minute	I can recognise simple equivalent fractions	I can recall square numbers up to 122	

Year 1

Year 2

Year 3

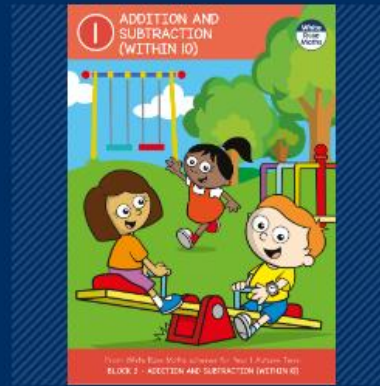
Year 4

Year 5

Year 6



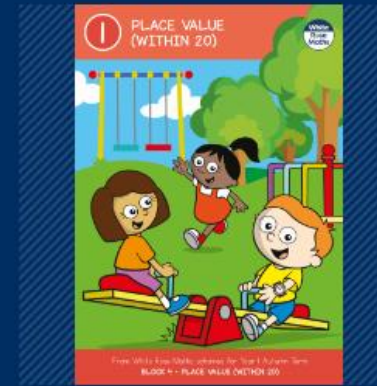
Autumn Block 1
Place value (within 10)



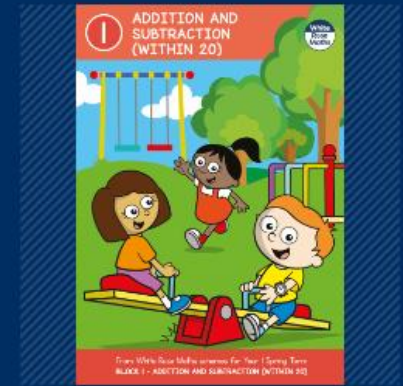
Autumn Block 2
Addition and subtraction
(within 10)



Autumn Block 3
Shape



Autumn Block 4
Place value (within 20)



Spring Block 1
Addition and subtraction
(within 20)

We follow the White Rose Maths scheme of learning, which promotes a mastery approach to maths.

Link to parent resources:

<https://whiterosemaths.com/parent-resources>

Link to One Minute Maths app:

<https://whiteroseeducation.com/1-minute-maths#download>

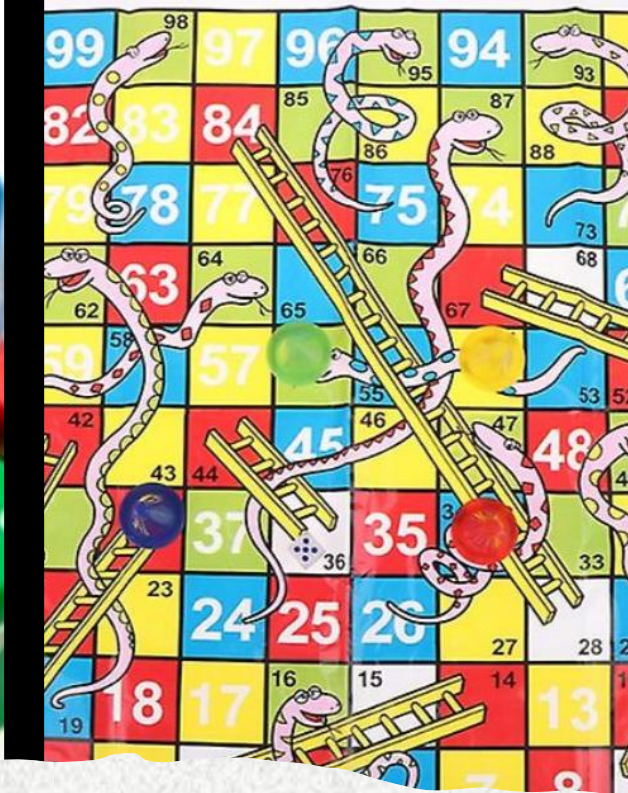
Maths Home Learning at St Paul's C of E Primary School.

Home Learning for maths differs depending on the Key Stage of your child.

In Key Stage One, we have prioritised the learning of Key Instant Recall Facts (KIRFs).

Look on your child's class page for the one for this term. If you want to look ahead or look back, the rest can be accessed here.

<https://stpaulswarwick.secure-primariesite.net/key-instant-recall-facts/>



In addition to this, please play lots of number and counting games such as Snakes and Ladders with your child as well as any games using dice.

Recommended Online Maths Games

- There are loads of great ones available for free. Here are just a few. They range from simple counting games to times table games.

<https://www.topmarks.co.uk/learning-to-count/underwater-counting>

<https://www.topmarks.co.uk/learning-to-count/place-value-basketball>

<https://www.topmarks.co.uk/maths-games/hit-the-button>

<http://www.math-play.com/Place-Value-Millionaire/place-value-millionaire-game.html5.html>

Suggested resources to support your child at home.



https://www.amazon.co.uk/Learning-Resources-Snap-Cubes-Set/dp/B000G3LR9Y/ref=sr_1_12?crid=771R7A02BHTO&keywords=learning+resources+maths+link+cubes&qid=1672914078&s=kids&sprefix=learning+resources+maths+link+cubes%2Ctoys%2C89&sr=1-12



https://www.amazon.co.uk/Numicon-Bag-Shapes-1-10/dp/0198487312/ref=d_pd_sbs_sccl_3_4/262-3769056-4008113?pd_rd_w=GuldB&content-id=amzn1.sym.ea6fa2b9-b25b-401b-aef1-8543b649508d&pf_rd_p=ea6fa2b9-b25b-401b-aef1-8543b649508d&pf_rd_r=M3B45GXJEJGVHCBDPQD1&pd_rd_wg=Q2U1C&pd_rd_r=28dcbbf1-1508-4621-bd92-7e06b772c6b6&pd_rd_i=0198487312&psc=1



https://www.amazon.co.uk/Learning-Resources-LSP2509-UKM-Fraction-Equivalency/dp/B000296LSO/ref=sr_1_4_mod_primary_new?crid=1WBCALVCE44T3&keywords=learning%2Bresources%2Bfraction%2Btowers&qid=1672914315&s=kids&sbo=RZvfv%2F%2FHxDF%2BO5021pAnSA%3D%3D&sprefix=learning%2Bresources%2Bfraction%2Btowers%2Ctoys%2C161&sr=1-4&th=1

ANY QUESTIONS?



dreamstime.