

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



Enjoy maths



Experience success



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

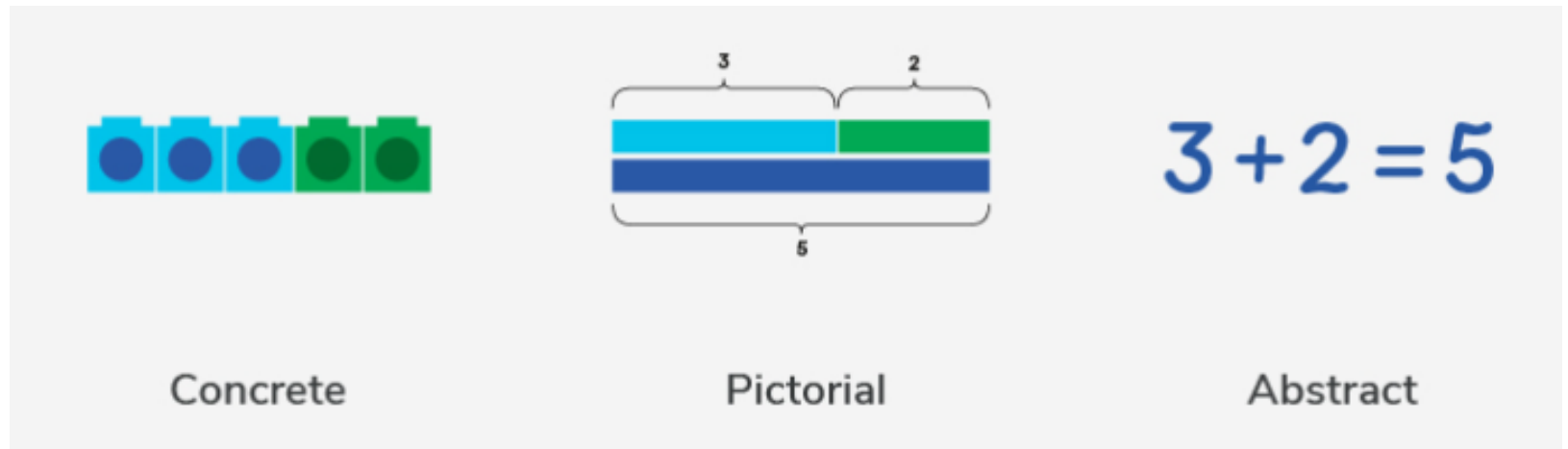


Recognise the importance and relevance of Maths in the wider world



Develop mathematical resilience

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

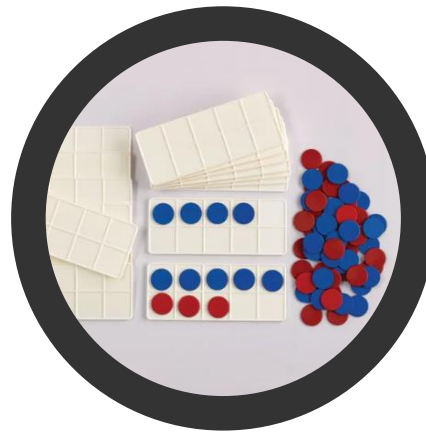


Reinforcement is achieved by going back and forth between these representations.

Concrete Representation

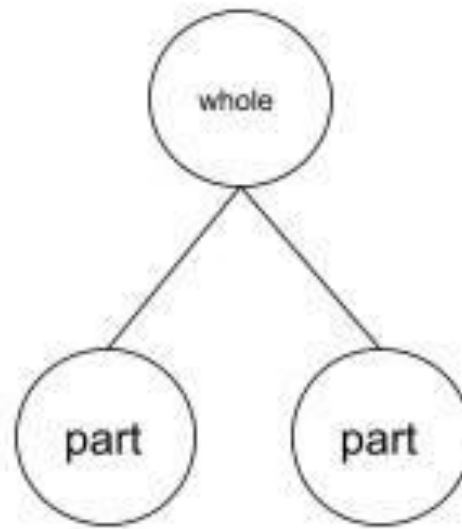
A pupil is first introduced to an idea or a skill by acting it out with real objects (manipulatives).

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

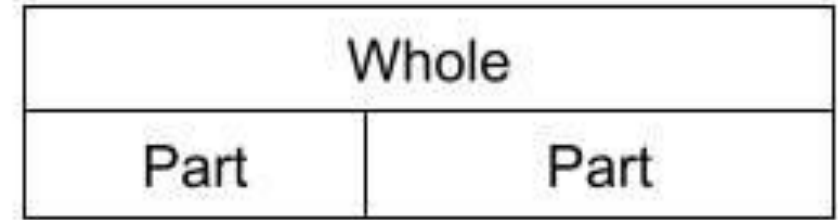


Pictorial Representation

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.

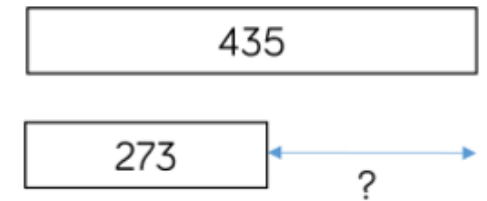
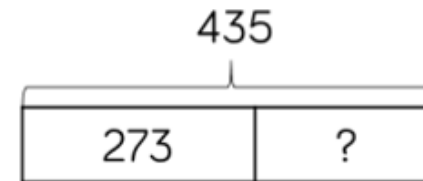
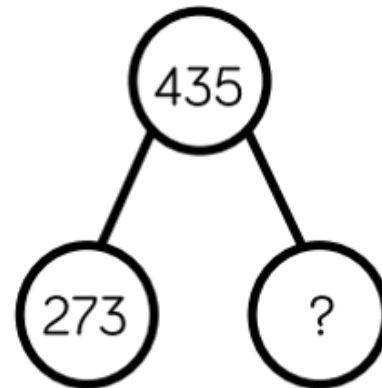


cherry diagram



Bar model

$$435 - 273 = ?$$



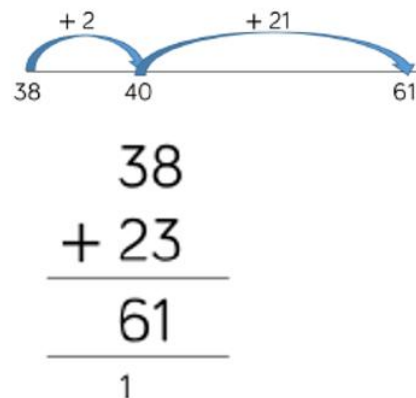
Abstract Representation

Pupils are now capable of representing problems by using numbers and mathematical notation.

Link to St Paul's C of E Calculation Methods:

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

$$38 + 23 = 61$$



$$245 \times 4 = 980$$

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

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>		$8 + 7 = 15$

$$435 - 273 = 162$$

$$\begin{array}{r} 3 1 \\ 435 \\ - 273 \\ \hline 162 \end{array}$$

$$52 \div 4 = 13$$

		1	3	
	4	5	12	

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

Topics are broken up into units of learning and then further broken up into small steps (lessons).

	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 term	Number Place value FREE TRIAL VIEW		Number Addition and subtraction VIEW			Number Multiplication and division A VIEW						
Spring term	Number Multiplication and division B VIEW		Measurement Length and perimeter VIEW		Number Fractions A VIEW			Measurement Mass and capacity VIEW				
Summer term	Number Fractions B VIEW		Measurement Money VIEW		Measurement Time VIEW			Geometry Shape VIEW		Statistics VIEW		Consolidation

Link to yearly overview of topics for each year group:

<https://whiteroseeducation.com/resources?year=year-1-new&subject=maths>

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

Year 3 and 4- Children will be set a short piece of maths homework (along with their spellings) each week to be completed in their Home Learning books.

Tasks will be set on a **Friday** and there will be an expectation that they are handed back in on **Wednesday**.

Year 5 and 6- Children will be assigned a short piece of paper-based maths learning that will be sent home in a homework folder.

Tasks will be set on a **Wednesday** and there will be an expectation that they are completed by the following **Tuesday**.



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

Children will be given a login to Times Table Rock Stars.

Years 3-6: Encourage children to use at least 3x per week to promote their rapid recall of times table facts.

<https://ttrockstars.com/>

Times table fluency – heat map

	10	2	5	3	4	8	6	7	9	11	12
10	10 × 10	10 × 2	10 × 5	10 × 3	10 × 4	10 × 8	10 × 6	10 × 7	10 × 9	10 × 11	10 × 12
2	2 × 10	2 × 2	2 × 5	2 × 3	2 × 4	2 × 8	2 × 6	2 × 7	2 × 9	2 × 11	2 × 12
5	5 × 10	5 × 2	5 × 5	5 × 3	5 × 4	5 × 8	5 × 6	5 × 7	5 × 9	5 × 11	5 × 12
3	3 × 10	3 × 2	3 × 5	3 × 3	3 × 4	3 × 8	3 × 6	3 × 7	3 × 9	3 × 11	3 × 12
4	4 × 10	4 × 2	4 × 5	4 × 3	4 × 4	4 × 8	4 × 6	4 × 7	4 × 9	4 × 11	4 × 12
8	8 × 10	8 × 2	8 × 5	8 × 3	8 × 4	8 × 8	8 × 6	8 × 7	8 × 9	8 × 11	8 × 12
6	6 × 10	6 × 2	6 × 5	6 × 3	6 × 4	6 × 8	6 × 6	6 × 7	6 × 9	6 × 11	6 × 12
7	7 × 10	7 × 2	7 × 5	7 × 3	7 × 4	7 × 8	7 × 6	7 × 7	7 × 9	7 × 11	7 × 12
9	9 × 10	9 × 2	9 × 5	9 × 3	9 × 4	9 × 8	9 × 6	9 × 7	9 × 9	9 × 11	9 × 12
11	11 × 10	11 × 2	11 × 5	11 × 3	11 × 4	11 × 8	11 × 6	11 × 7	11 × 9	11 × 11	11 × 12
12	12 × 10	12 × 2	12 × 5	12 × 3	12 × 4	12 × 8	12 × 6	12 × 7	12 × 9	12 × 11	12 × 12

Questions with purple borders are the ones this pupil will practise in Garage. The colours on this page relate to the speed shown in this table:

0 - 1s	1 - 2s	2 - 3s	3 - 4s	4 - 5s	5 - 6s	6 - 7s	7 - 8s	8 - 9s	9 - 10s	> 10s
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How can you help your child develop mental fluency?



Maths: Key Instant Recall Facts (KIRFs)



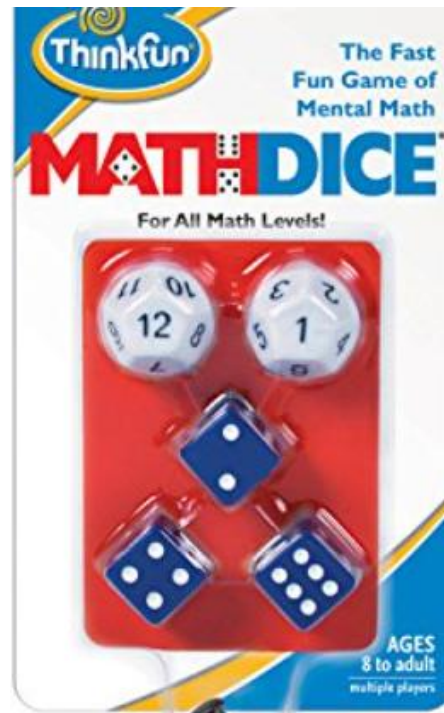
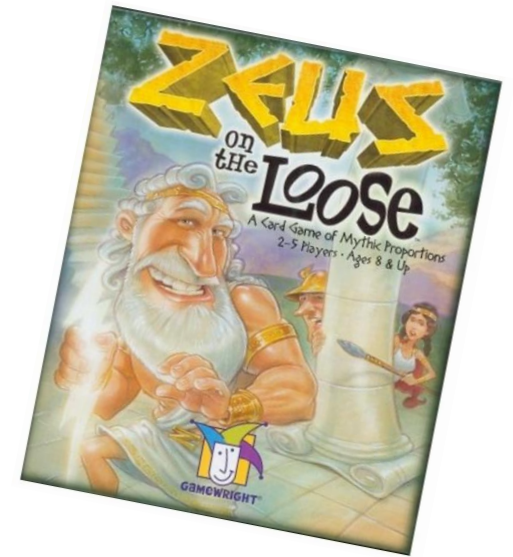
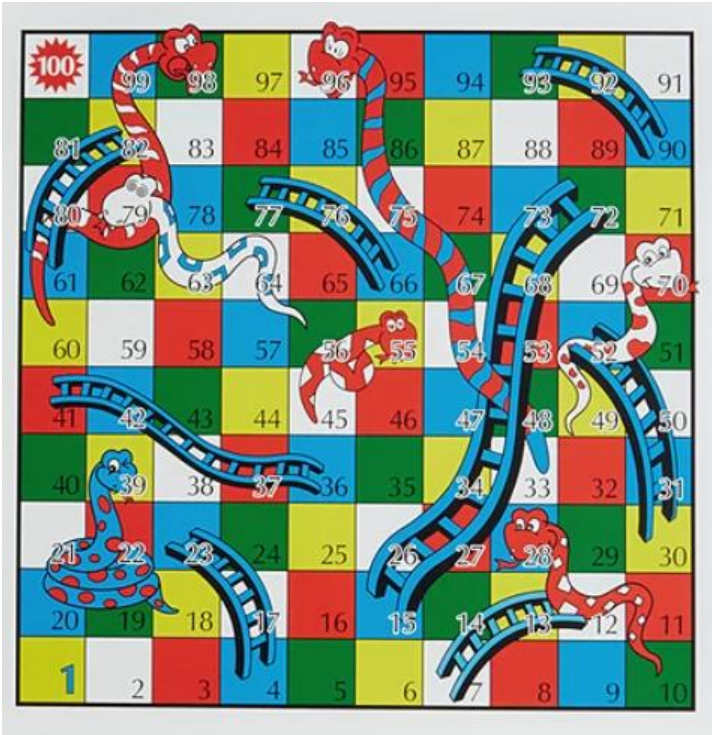
KIRFs (Key Instant Recall Facts) are designed to support the development of the mental fluency skills that underpin much of the mathematics curriculum. Instant recall of facts helps enormously with mental agility in mathematics; when children move onto written calculations and abstract methods, knowing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

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

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	

Play board games!



Shut The Box Dice Board Game...



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.