



Crigglestone St James Academy
Calculation Policy
2023 - 2024



Addition

EYFS/Year 1 - Using practical equipment (always starting with the biggest number)

$4 + 2 = 6$

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EYFS/Year 1 - Part Whole Models - children learn with pictorial and then move onto numerical.

$3 + 2 = 5$

$4 + 3 = 7$

EYFS/Year 1 - Ten Frames - Children use practical equipment on 10 frames and then draw the amounts themselves onto the 10 frames.

$4 + 7 = 11$

EYFS/Year 1 - Draw the concrete to represent the numbers and count them altogether.

$3 + 5 = 8$

Years 4 to 6

Column Method using regrouping (Place Value Counters/Base 10 to support)

Year 4 – up to 4 digits

Year 5 – including decimals with same amount of decimal places

Year 6 – including decimals with different amount of decimal places

Year 3 - Place Value Counters with the column method alongside using regrouping (up to 3 digits)

$243 + 368 = 611$

Year 2 - Using Base 10 to combine 2 numbers (TO + O and TO + TO)

No regrouping

$41 + 8 = 39$

Regrouping

$36 + 25 = 61$



Subtraction

EYFS/Year 1 - Using practical equipment to physically take away the smallest number from the biggest number.

$8 - 2 = 6$

EYFS/Year 1 - Part Whole Models - children learn with pictorial and then move onto numerical.

$5 - 2 = 3$

$7 - 3 = 4$

EYFS/Year 1 - Ten Frames - Children use practical equipment on 10 frames and then draw the amounts themselves onto the 10 frames.

$15 - 9 = 6$

EYFS/Year 1 - Draw the concrete and cross out.

$7 - 5 = 2$

Years 4 to 6

Column method using exchanging (using Place Value Counters/Base 10 to support)

Year 4 – up to 4 digits

Year 5 – including decimals with same amount of same decimal places

Year 6 – including decimals with different amount of decimal places

Year 3 - Place Value Counters using exchanging

$234 - 88 = 146$

Year 2 - Using Base 10 (TO - O and TO - TO)

No Exchanging

$48 - 7 = 41$

Exchanging

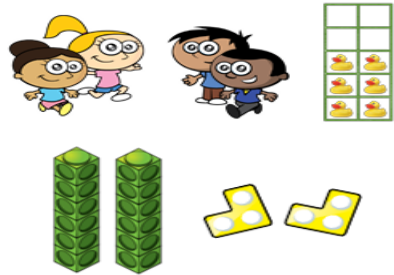
$41 - 26 = 15$

(Start with the ones)



Multiplication

EYFS/Year 1 - Doubling - Using real objects and mathematical equipment to recognise that it is "twice as many". Using the correct language "Double 3 is 6"

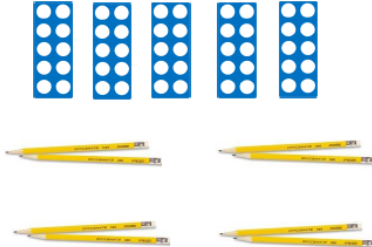


Year 1 - Recognising and making equal groups with real objects and mathematical equipment

3 groups of 2



Year 1 - Counting in multiples of 2s, 5s and 10s using real objects and mathematical equipment



Year 1/Year 2 - Write out the numbers in the times table and count how many lots of that number you need.

$$8 \times 2 = 16$$

0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24

Start at 0 and jump forward 8 numbers

Years 5 and Years 6

Formal Column Method

Year 5 - 4 digit x 1 digit and 4 digit x 2 digit

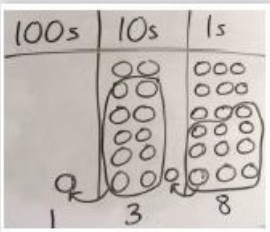
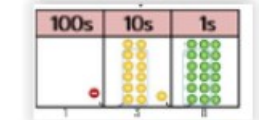
Year 6 - Multi-digit up to 4 digit x 2 digit

$$124 \times 26$$

	1	2	4	
x	2	6		
	7	4	4	
	2	4	8	0
	3	2	2	4
	1	1		
Answer: 3224				

Year 4 - Place Value Counters - Moving into Formal Column Method

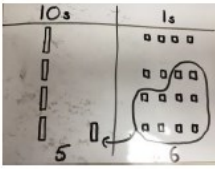
$$6 \times 23$$



Year 3 - Using learnt methods from Year 1 and Year 2. Then Base 10 for 2 digit x 1 digit.

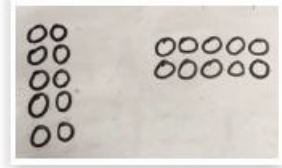
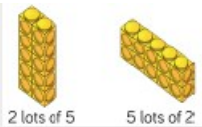
$$3 \times 13$$

$$4 \times 14$$



Year 2 - Draw Arrays

$$2 \times 5 = 5 \times 2$$

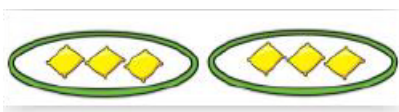




Division

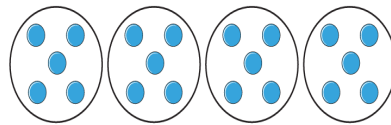
EYFS/Year 1 - Sharing - Share objects into equal groups. This is done practically and pictorially

Share 6 into 2 equal groups



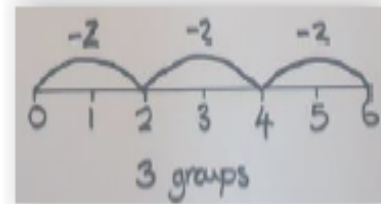
EYFS/Year 1 - Make Equal Groups - With objects/pictorials provided, make these into equal groups.

The 20 circles into 4 equal groups



Year 2 - Repeated Subtraction - Using a number line to count backwards by the number which you're dividing by

$$6 \div 2 = 3$$



Year 2 - Write out the numbers in the times table of the number you're dividing by and count to the number you want to divide.

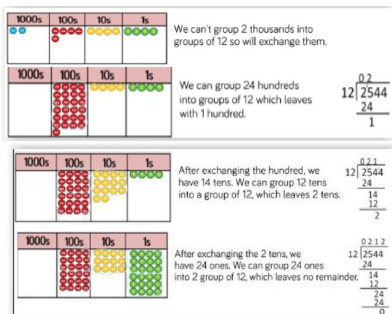
$$20 \div 2 = 10$$

0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24

Start at 0 and jump forward to 20, however many jumps is the answer.

Year 6 - Long Division - Place Value Counters

$$2544 \div 12 = 212$$

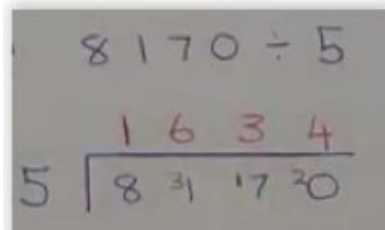


Years 5 & 6 - Short Division - Bus Stop.

Year 5: 4 digit \div 1 digit

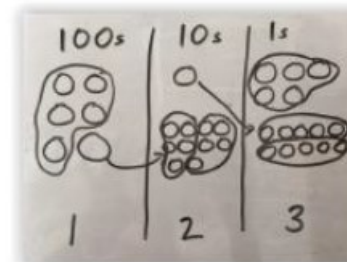
Year 6: 4 digit \div 2 digit

$$8170 \div 5 = 1634$$



Year 4 - Short Division - Place Value Counters (3 digit \div 1 digit)

$$615 \div 5 = 123$$



Year 3 - Sharing using Place Value Counters (2 digit \div 1 digit)

$$42 \div 3 = 14$$

