

Ways to help at home

Become familiar with these methods and encourage children to use them when completing their homework or doing real life problem solving.



Provide opportunities for children to practise the method that is appropriate for their age. For example you could ask them to add up restaurant bills, shopping lists or game scores etc.



Remember little and often, combined with a bit of fun works best.

Good luck!

Calculations guide for parents and pupils



Ridgewell
C of E VA Primary School

In line with the New National Curriculum (2014) Ridgewell Primary School has chosen to adopt one formal written calculation method for each of the mathematical operations. The children will be regularly taught these methods in order that they become secure using them. We hope that they will then be able to apply them to problem solving and all other areas of mathematics.

This calculation guide has been split into year group sections to show how these operations will be taught and built on as the children progress through the school. Its main aim is to assist you when helping your child with their mathematics at home. If you have any further questions please ask.

Thank you for your support.

learning, living, loving and laughing

Year 5 & 6

Children consolidate the methods they learnt in Year 3 and 4 and move onto adding and subtracting decimals and larger numbers.

Addition

$$\begin{array}{r} 12459 \\ + 3601 \\ \hline 16060 \end{array}$$

$$12459 + 3601 = 16060$$

Subtraction

$$\begin{array}{r} 2563 \\ - 1484 \\ \hline 1079 \end{array}$$

$$2563 - 1484 = 1079$$

Multiplication

Children extend the lattice method to multiply 3 digit numbers by 2 digit numbers. Using their place value and column addition skills to add their multiplications.

	5	3	6	x	
	2	1	2		4
2	0	2	4		
5	3	5	1	2	7
	1	9	2		

$$536 \times 47 = 25192$$

Division

This method is extended to larger numbers and is also applied to decimal numbers.

$$7 \overline{) 6419}$$

$$6419 \div 7 = 917$$

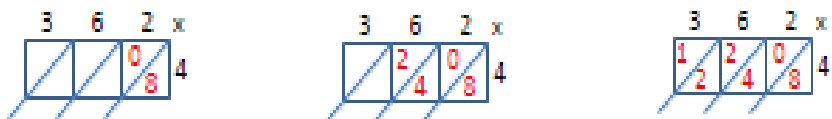
Years 3 & 4

Multiplication

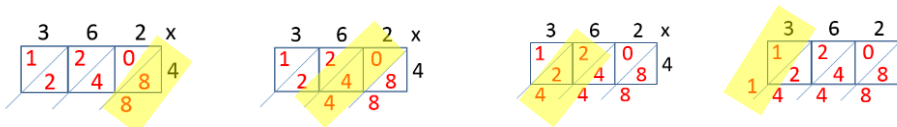
The formal written method that the children are taught for multiplication is called the lattice method. Children use their place value and multiplication knowledge to complete this written calculation.

Split your number into ones, tens and hundreds. Put the number you are multiplying by at the side.

Multiply the ones, then the tens then the hundreds as below and write your answer in the box below each digit, separating the tens and ones with the diagonal line.



Now use the diagonal lines to add up each column as you do in column addition. Start at the ones column and then finish at the thousands.



$$362 \times 4 = 1,448$$

Division

In Year 3 children learn that division is the inverse (opposite) of multiply and use their knowledge of tables to divide.

$$3 \times 4 = 12 \quad \text{so } 12 \div 4 = 3$$

In Year 4 children start to learn the bus stop method. How many 7s in 4? 0 so the 4 is carried to the next column. How many 7s in 46? 6 with 4 remaining so this 4 is carried to the next column. How many 7s in 49? 7.

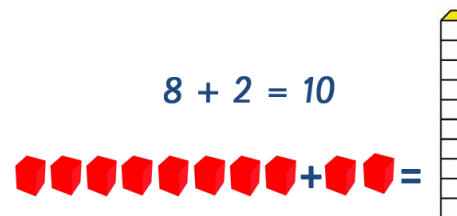
$$\begin{array}{r} 067 \\ 7 \overline{)469} \end{array}$$

EYFS

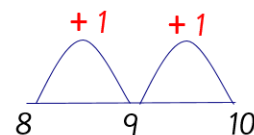
In EYFS children use concrete objects and number lines to add and subtract. Calculations are laid out horizontally:

Addition

Children are taught to count out objects, add some more objects and then count them all.

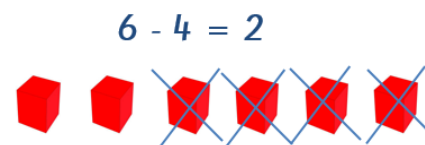


They then use a number line. Start at the number you've got then jump on the amount you are adding.

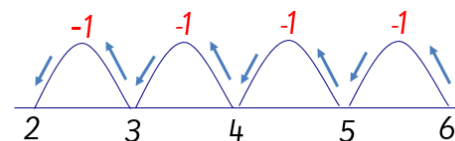


Subtraction

Counting out objects then taking some away.



Using a number line to take numbers away by jumping backwards.

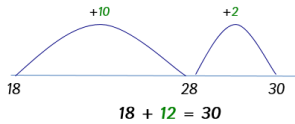


Years 1 & 2

In Year 1 and 2 children continue to use a number line and record calculations as a horizontal sum.

Addition

Children build on the number line method learnt in EYFS but become confident using bigger jumps.

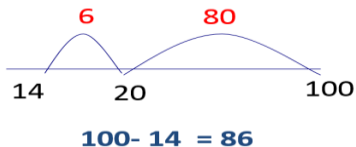


Some children will use their number bonds to help them calculate and will

Using my number bonds I know that:
 $10 + 10 = 20$ and $8 + 2 = 10$
 $20 + 10 = 30$

record this horizontally.

Subtraction



During Year 2 they use their knowledge of place value and move onto the vertical column methods to add and subtract which are explained on the Year 3 & 4 page.

Multiplication

Children are taught that groups of and lots of mean multiply and they learn and record these facts as a horizontal sum.

$$2 \times 5 = 10$$

Division

Children write division as a horizontal sum and share objects into groups.

$$10 \div 2 = 5$$

Years 3 & 4

In Year 3 and 4 children start working with larger numbers so they learn and become secure with a pencil and paper method to calculate each of the four operations. Calculations for addition and subtraction are taught using the vertical column addition methods.

Addition

Digits must be lined up in the correct columns. Always begin adding from the ones (units) column. When tens are carried to the next column children are taught to “peg” them on the top equal line so they don’t forget to add them in with the next column.

$$\begin{array}{r} 459 \\ + 342 \\ \hline \end{array}$$

Carrying is shown with red numbers: 1 under the tens column and 1 under the hundreds column. The result is 801.

$$459 + 342 = 801$$

Subtraction

Again digits must be lined up in the correct columns. Always begin subtracting from the ones (units) column, Tens are “borrowed” or “exchanged” from the next column when there is not enough to take from.

$$\begin{array}{r} 742 \\ - 314 \\ \hline \end{array}$$

Borrowing is shown with red numbers: 3 above the tens column and 1 above the units column. The result is 428.

$$742 - 314 = 428$$