

## Parents' Guide to Maths Year 4

### Importance of using the correct method

Thank you for supporting your children with their maths. Remember, you may know other methods that are different or quicker, but it is important for the children to use the methods we use in school. We hope this guide will be helpful for you.

### Glossary: Dienes – a plastic counting brick in tens, ones, hundreds

**Jottings** – writing and drawing any method to calculate an answer.

**Place value** – the value of a digit in a number eg 235 the '3' is worth '30'

**Regroup** – to make groups of eg 10 (used to be called 'carrying' or 'borrowing')

+ Addition +				- Subtraction or Take away-	
National Curriculum	Concrete	Pictorial	Abstract	Concrete	Pictorial
Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)		Can use place value in jottings to help calculations. $426 + 65 = (426 + 60) + 5$ $= 486 + 5$ $= 491$			
To add or subtract numbers with up to four digits using the formal method of column addition/subtraction.		Add the blocks or counters in the columns. Visual representation if needed by the children. 	Now add numbers in the columns starting with the ones column. 		
Column addition or subtraction with regrouping.	Using counters: When there are 10 ones in the 1s column, we regroup for one ten; when there are 10 tens in the 10s column, we regroup for 1 hundred. 	Children can draw the grid. Then regroup underneath the line. 		Use Dienes or place value counters. Exchange a ten into ten ones. This is called 'regrouping'. 	Draw Dienes or place value counters and cross them off when regrouping. 
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### National Curriculum expects children in year 3 to:

- Count in multiples of 6, 7, 9, 25 and 1000.
- Recall multiplication and division facts for multiplication tables up to  $12 \times 12$ .
- Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers
- Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit; scaling problems and harder correspondence problems.

### Glossary: distributive law – This allows us to distribute (break up) larger numbers to help us with calculations.

numbers to help us with calculations.

**Remainder** – sometimes when you divide, there's a number left over.

**Regroup** – to make groups of eg 10/100 (used to be called 'carrying' or 'borrowing')

**Scaling** - Scaling is when you are given information about something and then have to apply it to a smaller or larger quantity.

x Multiplication x					- Division -	
National Curriculum	Concrete	Pictorial	Abstract	Concrete	Pictorial	Abstract
<p>Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.</p>	<p>Calculate <math>25 \times 8</math>. Here's one method. There are other methods to solve this.</p> $25 \times 8 = 20 \times 8 + 5 \times 8 = 160 + \square = \square$	<p>Use a part-whole model.</p>	<p>Using partitioning</p> $\begin{array}{r} 23 \\ \times 3 \\ \hline 69 \end{array}$ $\begin{array}{l} 3 \times 23 \\ 20 \times 3 \end{array}$ $3 \times 20 = 60$ $3 \times 3 = 9$ $60 + 9 = 69$	<p>Sharing using Dienes or place value counters.</p>	<p>Bar models may also be drawn, like this:</p>	<p>Start using short division - the 'bus stop' method, with and then without counters.</p>
	<p>Formal column method with place value counters.</p> $6 \times 23$	<p>Draw the place value</p>	<p>Using the column method Some children may move onto regrouping a number.</p>	<p>divide 42 by 3</p>	<p>Use a part-whole model like this:</p>	<p>Some children may be ready to regroup numbers.</p> $96 \div 4 = 24$
	<p>Distributive law:</p> $5 \times 32 = 5 \times (30 + 2) = 5 \times 30 + 5 \times 2 = 150 + 10 = 160$			<p>84 ÷ 2</p>	<p>Jump back on a number line. Here's 34 divided by 4</p>	$\begin{array}{r} 24 \\ 4 \overline{) 96} \\ \underline{8} \phantom{0} \\ 16 \\ \underline{16} \\ 0 \end{array}$