
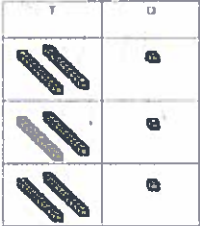
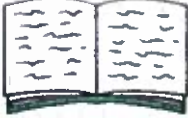


Year 4 – Multiplication

Key words: column method, place value, digits, thousands, hundreds, tens, ones, regrouping, exchanging, times tables, partitioning.

Resources: multiplication square, place value grid, number line, counters, dienes.

By Year 4, children should be able to multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout.

	Questions																		
WTS	<p>There are 21 chocolate bars in each vending machine. How many chocolate bars are there in 3 vending machines?</p> <div style="display: flex; justify-content: center; align-items: center; gap: 20px;">   </div> <p>Use this method to solve</p> <p style="text-align: center;">22×3 12×4 33×3</p> <p>Use APE to explain how you know you are correct.</p>																		
EXS	<p>Spot the mistake</p> <p>Beth and Natasha have both completed the same multiplication. Who has the correct answer? What was the misconception that caused the error?</p> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;"> <p>Beth</p> <table border="1" style="border-collapse: collapse; margin: 0 auto;"> <tr><td>2</td><td>3</td><td>4</td></tr> <tr><td>x</td><td></td><td>6</td></tr> <tr><td colspan="3" style="border-top: 1px solid red;">1, 2 0 4</td></tr> </table> </div> <div style="text-align: center;"> <p>Natasha</p> <table border="1" style="border-collapse: collapse; margin: 0 auto;"> <tr><td>2</td><td>3</td><td>4</td></tr> <tr><td>x</td><td></td><td>6</td></tr> <tr><td colspan="3" style="border-top: 1px solid red;">1, 4 0 4</td></tr> </table> </div> <div style="margin-left: 20px;"> <p>Use APE to explain how you know you are correct.</p> </div> </div>	2	3	4	x		6	1, 2 0 4			2	3	4	x		6	1, 4 0 4		
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GDS	<p>Charlie and his mum were having a reading competition. In one month, Charlie read 814 pages.</p> <div style="text-align: center; margin: 20px 0;">  </div> <p>His mum read 4 times as many pages as Charlie.</p> <ul style="list-style-type: none"> • How many pages did they read altogether? • How many less pages than his Mum did Charlie read? <p style="text-align: right; margin-top: 20px;">Use APE to show you know you are correct.</p>																		

Solutions

WTS

$$\begin{array}{r} 21 \\ \times 3 \\ \hline 3 \text{ (3} \times 1) \\ + 60 \text{ (3} \times 20) \\ \hline 63. \end{array}$$

I know I am correct because my answer shows three groups of 21. I have partitioned the number into 20 and 1.

EXS

$$\begin{array}{r} 234 \\ \times 6 \\ \hline 1404 \\ 22 \end{array}$$

Natasha has the correct answer.

Beth didn't exchange her 20 tens for 2 hundreds.

GDS

①
$$\begin{array}{r} 814 \\ \times 5 \\ \hline 4,070 \end{array}$$

- Altogether they read 4,070 pages. I know I am correct because Charlie read 814 and his mum read 4 times as much so the calculation would be 814×5 .

②
$$\begin{array}{r} 814 \\ \times 3 \\ \hline 2442 \end{array}$$

- Charlie read 2,442 pages less than his mum. I know I am correct because my calculation shows that Charlie's mum would have read 3 times more.