

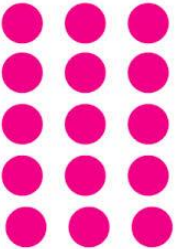


Ivy Lane School Calculation Policy

Multiplication

Revised and Reissued November 2019.

Multiplication

Key objective	Year Group expectation	Vocabulary & Examples of methods.	Multiplication tables & expectations Suggested Manipulatives	Mastery Resources For Multiplication
Counting in 2s,5s,10s / learning of 2,5,10s times tables	1	Add Double Count Pattern Repeated addition	2,5 & 10's Multiplication tables Cubes / Diennes	Isee reasoning KS1 White Rose
Multiply as groups of sets of Introduce doubling and ensure clear link to x2	1	Groups of Multiply times		
Multiplication as an array	2	Product Array  $5 \times 3 = 15$		

<p>Grid method (2 digit number x 1 digit number)</p> <p>Grid method (2 digit number x 1 digit number)</p> <p>Additional Note To teach teen numbers first e.g 16 x 7 To place two digit number vertically</p>	<p>2</p> <p>Y2/3</p>	<p>Grids Method Partition Units Tens</p> <p>Example</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td style="text-align: center;">10</td> <td style="text-align: center;">3</td> </tr> <tr> <td style="text-align: center;">8</td> <td style="border: 1px solid black; text-align: center;">80</td> <td style="border: 1px solid black; text-align: center;">24</td> </tr> </table> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="border: 1px solid black; text-align: center;">X</td> <td style="border: 1px solid black; text-align: center; color: red;">7</td> </tr> <tr> <td style="border: 1px solid black; text-align: center; color: red;">10</td> <td style="border: 1px solid black; text-align: center;">70</td> </tr> <tr> <td style="border: 1px solid black; text-align: center; color: red;">6</td> <td style="border: 1px solid black; text-align: center;">42</td> </tr> </table>		10	3	8	80	24	X	7	10	70	6	42	<p>Recall and use X and ÷ facts for 2,4,5 and 10 times tables</p> <p>Recall and use X and ÷ facts multiplication tables for 12 x 2,3,4,5,6,8, 10 times tables</p> <p>Multiplication tables Cubes & Diennes Pre-prepared grids</p>	
	10	3														
8	80	24														
X	7															
10	70															
6	42															

<p><u>Y3/4</u></p> <p>Grid method</p> <p>(2 digit number X 2 digit number)</p> <p>(3 digit number x 1 digit number)</p> <p>Example 116 X 7</p>	<p>Grids Method Partition Units Tens</p> <p>Example Add below using column addition</p> <table border="1" style="margin-left: 20px;"> <tr> <td style="width: 20px;"></td> <td style="width: 40px; text-align: center;">10</td> <td style="width: 40px; text-align: center;">5</td> <td style="width: 20px;"></td> </tr> <tr> <td style="border: none;">2</td> <td style="border: none;"></td> <td style="border: none;"></td> <td style="border: none;"></td> </tr> </table> <p>NB – Extend GDS by using short expanded method T5/6 of Year 4</p>		10	5		2				<p>Recall and use X and ÷ facts multiplication tables up to 12 x 12.</p> <ul style="list-style-type: none"> • Multiplication tables • Cubes & Diennes • Pre-prepared grids • Place value X10,100 	<p>Isee reasoning LKs2 White Rose T:/curriculum/maths/Reasoning T&L</p>
	10	5									
2											
<p><u>Year 5</u></p> <p>Short X (expanded standard method)</p> <p>Tu x U, HTU x U, TU x TU, HTU x TU</p> <p>(and extend to</p>	<table style="margin-left: 20px;"> <tr><td>24</td></tr> <tr><td><u>X 16</u></td></tr> <tr><td>24 (6x4)</td></tr> <tr><td>120 (6x20)</td></tr> <tr><td>40 (10x4)</td></tr> <tr><td><u>200 (10x20)</u></td></tr> <tr><td><u>384</u></td></tr> </table>	24	<u>X 16</u>	24 (6x4)	120 (6x20)	40 (10x4)	<u>200 (10x20)</u>	<u>384</u>	<p>Consolidate and recall X tables and inverse up to 12 x 12</p>	<p>Isee reasoning UKs2 White Rose T:/curriculum/maths/Reasoning T&L</p>	
24											
<u>X 16</u>											
24 (6x4)											
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40 (10x4)											
<u>200 (10x20)</u>											
<u>384</u>											

decimals)			
<p>Short X (expanded standard method) Tu x U, HTU x U , TU x TU, HTU x TU</p> <p>(and extend to decimals)</p> <p><u>Y5/6</u> Expanded written method (formal)</p>	<p><u>Year 5 and 6 Written Multiplication</u></p> <p>In year 5 and 6 children will be expected to record more formally. They will be taught how to use a formal compact written method to multiply.</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> $\begin{array}{r} 2741 \\ \times \quad 6 \\ \hline 16446 \\ \hline 42 \end{array}$ </div> <div style="text-align: center;"> $\begin{array}{r} 4276 \\ \times \quad 34 \\ \hline 17104 \\ 128280 \\ \hline 145384 \end{array}$ </div> </div>	<p>Consolidate and recall X tables and inverse up to 12 x 12</p> <p>Extend to X by 0.1 / 10/100/1000</p>	