

Ashton West End Primary Academy

Progression in Maths – Multiplication

Year	Progression for Multiplication						
R	<p>Jumping along number lines in steps of.... 100 square to look at patterns of multiples. Grouping –counting groups of the same size Counting in 1, 2, 5 and 10 Doubling through practical experiences Talking and using mathematical language</p>						
1	<p>Solve practical problems involving groups of 2,5 or 10- draw pictures, groups or arrays Total groups of, repeated addition Doubling to 10 Record multiplication sentences Double to 20 Talking and using mathematical language.</p>						
2	<p>Vocabulary of doubles, multiply, groups of, lots of etc. Repeated addition Doubling 10-20 upto 100. Counting in 2,3,5, 10. Use of arrays to solve simple problems.</p> <div style="text-align: center;"> <p>◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ 4 x 2 = 8 2 x 4 = 8</p> </div> <p>Use of x and = signs to record number sentences. Show that multiplication of two numbers can be done in any order e.g. 2 x 5 = 10, 5 x 2 = 10. Begin to introduce related facts such as 4 x 5 = 20, 20 ÷ 5 = 4.</p>						
3	<p>Recalling facts/related facts for 3,4,8 multiplication tables e.g. 3 x 8 = 24, 24 ÷ 8 = 3.</p> <p>Children should use the grid method first and then if their understanding of partitioning is good, try them on the short multiplication method with two digits x one digit.</p> <table border="1" style="display: inline-table; margin-right: 20px;"> <tr><td>x</td><td>30</td><td>4</td></tr> <tr><td>3</td><td>90</td><td>12</td></tr> </table> <div style="display: inline-block; vertical-align: middle;"> <p>90 $+12$ <u>102</u></p> </div> <p>1 34 (Short multiplication) X_3 <u>102</u></p>	x	30	4	3	90	12
x	30	4					
3	90	12					
4	<p>Recall multiplication facts for multiplication tables up 12 x 12.</p> <p>(a) Grid method used for children who need support with partitioning.</p> <table border="1" style="display: inline-table; margin-right: 20px;"> <tr><td>x</td><td>40</td><td>4</td></tr> <tr><td>6</td><td>240</td><td>24</td></tr> </table> <div style="display: inline-block; vertical-align: middle;"> <p>240 $+24$ <u>264</u></p> </div> <p>(b) Multiply two digit and three digit numbers by a one digit number using formal written layout (Most children by the end of the year)</p> <p>21 342 x_7 <u>2394</u></p>	x	40	4	6	240	24
x	40	4					
6	240	24					

<p>5</p>	<p>Multiply numbers up to four digits by a one or two digit number using a formal written method including long multiplication for two digit numbers.</p> $\begin{array}{r} ^{42} \\ 2741 \\ \times 6 \\ \hline 16446 \end{array}$ $\begin{array}{r} ^{12} \\ 124 \\ \times 26 \\ \hline 2480 \\ 744 \\ \hline 3224 \\ 11 \end{array}$
<p>6</p>	<p>Multiply multi digit numbers up to four digits by two digit whole numbers using the formal written method of long multiplication.</p> <p>Compact method of multiplication for integers and decimals</p> $\begin{array}{r} ^{12} \\ 124 \\ \times 26 \\ \hline 2480 \\ 744 \\ \hline 3224 \\ 11 \end{array}$ $\begin{array}{r} ^1 \\ 1.2 \\ \times 7 \\ \hline 8.4 \end{array}$