| Year | Early Years | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| National Curriculum End of Year Expectations | Count in 1 s | Count in 2 s | $2 \times$ table | Review 2 x . 5 x and 10x | $4 x$, 8 x tables 10 times bigger | $\begin{gathered} 4 x, 8 x \text { tables } \\ 100,1000 \text { times bigger } \end{gathered}$ | Multiplication facts up to $12 \times 12$ |
|  | Count in 2 s | Count in 10s | $10 \times$ table | 4 x table | $3 \mathrm{x}, 6 \mathrm{x}$ and 12x tables | $3 x, 6 x$ and $12 x$ tables $10,100,1000$ times smaller | Partition to multiply mentally |
|  |  | Doubles up to 10 | Doubles up to 20 and multiples of 5 | Double two digit numbers | Double larger numbers and decimals | Double larger numbers and decimals | Double larger numbers and decimals |
|  |  | Count in 5 s | $5 \times$ table | $8 \times$ table | 3 x , 9x tables | 3 x , 9x tables | Multiplication facts up to $12 \times 12$ |
|  |  | Double multiples of 10 | Count in 3 s | $3 \times$ table | 11x, 7x tables | $11 x, 7 x$ tables Partition to multiply mentally | Partition to multiply mentally |
|  |  | Count in 2 s , 5 s and 10 s | 2 x , 5 x and 10x tables | $6 \times$ table or review others | $6 \mathrm{x}, 12 \mathrm{x}$ tables | $6 \mathrm{x}, 12 \mathrm{x}$ tables | Double larger numbers and decimals |
| Written Methods | Mark making | Pictorial representations and arrays with the support of the teacher. | Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division ( $($ ) and equals $(=)$ signs. | Write and calculate mathematical statements for $\div$ using the x tables they know progressing to formal written methods. | Multiply two- <br> and three-digit 243 digit <br> numbers bya <br> digit rumber $\frac{x}{} \quad 6$ one- <br> using formal <br> written layout. $\frac{1458}{1}$  | Multiply <br> todigits by a <br> digit number <br> formal written $\underline{\times 36}$ numbers up <br> one or two- <br> using a <br> method, <br> including olong <br> multiplication <br> numbers. $\underline{\underline{7290}}$ for two-digit | Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication. $5172$ |
| Developing Conceptual Understanding |  |  |  | If I know $10 \times 8=80$ then... <br> So $13 \times 4=10 \times 4+3 \times 4$ <br> 40 <br> 12 <br> Build tables on counting sticks | $43 \times 6$ by partitioning   <br> $\times$ 40 3 <br> 6 240 18$43 / 6$ $40 \times 6=240$ <br> $3 \times 6=18$ <br> $43 \times 6=258$ <br> $40 \% \cdot 6+37 \cdot 6$  <br> $43 \times 6=258$  <br> If I know $4 \times 6=24$, <br> then $40 \times 6$ is ten times bigger, <br> $40 \times 60$ is one hundred times bigger. <br> $13 \times 16$ by partitioning $100+30+60+18=208$ <br> Building tables on a counting stick <br>  | Grid method linked to formal written method. <br> If I know $4 \times 6$ then $0.4 \times 6$ is ten times smaller, $0.4 \times 0.6$ is ten times smaller again. | $\begin{array}{r} 41376 \\ +\frac{155160}{196536} \\ \hline 1 \\ 2 \\ 131 \\ 5172 \\ \times 38 \\ 41376 \\ +\frac{155160}{196536} \\ \hline 1 \end{array}$ |
| With jottings .....in your head |  | Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representation and arrays with the support of the teacher. | Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in context. | Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental methods. | 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. Recognise and use factor pairs and commutativity in mental calculations. | Multiply and divide numbers mentally drawing upon known facts. Multiply and divide whole numbers and those involving decimals by 10,100 and 1000. <br> Identify multiples and factors, including finding all factor pairs of a number and common factors of two numbers. Establish whether a number up to 100 is prime. | Perform mental calculations, including with mixed operations and large numbers. |
| Just know it! | Count in multiples of 2 s . Doubles facts to 10 | Count in multiples of twos, fives and tens. | Recall and use x and $\div$ facts for the 2,5 and $10 \times$ tables, including recognising odd and even numbers. | Recall and use $x$ and $\div$ facts for the 3, 4 and 8 times table. | $\begin{aligned} & \text { Recall } \times \text { and } \div \text { facts for } \times \text { tables up to } \\ & 12 \times 12 . \end{aligned}$ | Recall prime numbers up to 19 . To know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. Recognise and use square numbers, cube numbers and the notation for squared ( ${ }^{2}$ ) and cubed ( ${ }^{3}$. |  |

