# Year 5 Maths Expectations

| Y5 | Maths - Expected Standard |
|---|---|
| **Number Place Value** | Count forwards and backwards in steps of 1,000 and 100,000 from any number up to 1,000,000. |
| | Round any number up to 1,000,000 to the nearest 100,000 10,000, 1000, 100 and 10. |
| | Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. |
| | Solve number problems and practical problems that involve all these aspects. |
| **+ and -** | Mentally add and subtract any 2 and 3-digit numbers. |
| | Add and subtract any 1000s number from any 5-digit number. |
| **x and ÷** | Identify multiples and be able to find all factor pairs. |
| | Recognise and use squared and cubed numbers and the correct notation. |
| | Use the square root sign $\sqrt{}$. |
| | Solve problems where larger numbers are used by decomposing them into their factors. |
| | Multiply numbers up to 4-digits by a 1-digit and 2-digit number using an efficient written method. |
| | Divide numbers up to 4-digits by a 1-digit number using short division written method. |
| | Solve problems including scaling by simple fractions and problems involving simple rates. |
| **Fractions** | Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those with a denominator of a multiple of 10 or 25. |
| | Mentally add and subtract tenths and mixed numbers with tenths. |
| | Add and subtract decimals up to 3 decimal places. |
| | Compare and order fractions whose denominators are all multiples of the same number. |

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|---|---|
| | Add and subtract fractions with the same denominator and related fractions; write mathematical statements >1 as a mixed number. |
| | Multiply proper fractions and mixed numbers by whole numbers up to 10, supported by materials and diagrams. |
| **Measures** | Convert metric to common imperial units and imperial to metric. |
| | Measure and calculate the perimeter of composite rectilinear shapes in cm and m. |
| | Calculate and compare the areas of squares and rectangles using square centimetres and square metres and estimate the area of irregular shapes. |
| **Shape** | Draw squares, rectangles and all triangles using given dimensions (to the nearest millimetre) and angles with a protractor. |
| | State and use the properties of a rectangle (including squares) to deduce related facts. |
| | Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. |
| | Identify multiples of 90°; angles at a point on a straight line and ½ a turn (total 180°); angles at a point and one whole turn (total 360°); reflex angles and compare different angles. |
| | Identify, describe and represent the position of a shape following a reflection or translation in all four quadrants, using the appropriate language, and know that the shape has not changed. |
| **Data** | Solve problems using information presented in line graphs. |
| | Interpret information stored in a pie chart. |