### YEAR 4 MATHS END OF YEAR EXPECTATIONS

#### Number and Place Value

- Count in multiples of 6, 7, 9, 25 and 1,000
- Find 1,000 more or less than a given number
- Count backwards through 0 to include negative numbers
- Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s)
- Order and compare numbers beyond 1,000
- Identify, represent and estimate numbers using different representations
- Round any number to the nearest 10, 100 or 1,000
- Solve number and practical problems that involve all of the above and with increasingly large positive numbers
- Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value

#### Addition and Subtraction

- Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
- Estimate and use inverse operations to check answers to a calculation
- Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why

#### Multiplication and Division

- Recall multiplication and division facts for multiplication tables up to $12 \times 12$
- Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers
- Recognise and use factor pairs and commutativity in mental calculations
- Multiply two-digit and three-digit numbers by a one-digit number using formal written layout
- Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as $n$ objects are connected to $m$ objects

#### Fractions

- Recognise and show, using diagrams, families of common equivalent fractions
- Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10
- Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number
- Add and subtract fractions with the same denominator
- Recognise and write decimal equivalents of any number of tenths or hundredths
- Recognise and write decimal equivalents to $1/4$, $1/2$, $3/4$
- Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths
- Round decimals with 1 decimal place to the nearest whole number
- Compare numbers with the same number of decimal places up to 2 decimal places
- Solve simple measure and money problems involving fractions and decimals to 2 decimal places
**Measurement**

- Convert between different units of measure [for example, kilometre to metre; hour to minute]
- Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
- Find the area of rectilinear shapes by counting squares
- Estimate, compare and calculate different measures, including money in pounds and pence
- Read, write and convert time between analogue and digital 12- and 24-hour clocks
- Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days

**Properties of Shape**

- Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes
- Identify acute and obtuse angles and compare and order angles up to 2 right angles by size
- Identify lines of symmetry in 2-D shapes presented in different orientations
- Complete a simple symmetric figure with respect to a specific line of symmetry

**Position and Direction**

- Describe positions on a 2-D grid as coordinates in the first quadrant
- Describe movements between positions as translations of a given unit to the left/right and up/down
- Plot specified points and draw sides to complete a given polygon

**Statistics**

- Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs
- Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs