# Y6 Maths Statements

## Place Value

- Read, write, (order and compare) numbers up to 10 000 000 and determine the value of each digit (A1)
- (read, write), order and compare numbers up to 10 000 000 and determine the value of the digit (A1)
- Round any whole number to a required degree of accuracy (A1)
- Use negative numbers in context and calculate intervals across zero(A1)
- Solve number and practical problems that involve rounding and negative numbers as above (A1)

## Addition and Subtraction

- Perform mental calculations, including with mixed operations and large numbers (A2)
- Use the knowledge of the four operations to carry out calculations involving four operations (A2)
- Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why (A2)
- Solve problems involving four operations (A2)

## Geometry

- describe positions on the full coordinate grid (all four quadrants) (Au4)
- draw and translate simple shapes on the coordinate plane, and reflect them in the axes. (Au4)
- draw 2-D shapes using given dimensions and angles (Su1)
- recognise, describe and build simple 3-D shapes, including making nets (Su1)
- compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons ((Su1)
- illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius (Su1)
- recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles (Su1)

## Ratio and Proportion

- solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts (Sp6)
- solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison (Sp6)
- solve problems involving similar shapes where the scale factor is known or can be found (Sp6)
- solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. (Sp6)

## Multiplication and Division

- Identify common factors, multiples and prime numbers (A2)
- Use estimation to check answers to calculations and determine in the context of a problem an appropriate degree of accuracy (A2)
- Multiply multi-digit numbers up to 4 digits by a two digit whole number using the formal method of long multiplication (A2)
- divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context (A2)
- divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context (A2)
- perform mental calculations, including with mixed operations and large numbers (A2)
- Solve problems involving four operations (A2)

## Measurement

- solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate (Sp4)
- use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places (Sp4) (Y5 – Su4)
- convert between miles and kilometres (Sp4)
- recognise that shapes with the same areas can have different perimeters and vice versa (Sp5)
- recognise when it is possible to use formulae for area and volume of shapes (Sp5)
- calculate the area of parallelograms and triangles (Sp5)
- calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units [for example, mm3 and km3] (Sp5)

## FDP

- use common factors to simplify fractions; use common multiples to express fractions in the same denomination (A3)
- compare and order fractions, including fractions > 1 (A3)
- add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions (A3)
- multiply simple pairs of proper fractions, writing the answer in its simplest form $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$ ] (A3)
- divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$ ] (A3)
- identify the value of each digit in numbers given to three decimal places (Sp1)
- multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places (Sp1)
- multiply one-digit numbers with up to two decimal places by whole numbers (Sp1)
- use written division methods in cases where the answer has up to two decimal places (Sp1)
- solve problems which require answers to be rounded to specified degrees of accuracy (Sp1)
- recall and use equivalences between simple fractions, decimals and percentages, including in different contexts (Sp1) (Sp2)
- associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example $\frac{3}{8}$ (Sp1) (Sp2)

## Algebra

- use simple formulae (Sp3)
- generate and describe linear number sequences (Sp3)
- express missing number problems algebraically (Sp3)
- find pairs of numbers that satisfy an equation with two unknowns (Sp3)
- enumerate possibilities of combinations of two variables. (Sp3)

## Statistics

- interpret and construct pie charts and line graphs and use these to solve problems (Su3)
- calculate and interpret the mean as an average. (Su3)