# Y5 Maths Statements

Place Value

- read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (A1)
- count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 (A1)
- interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero (A1)
- round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 (A1)
- solve number problems and practical problems that involve all of the above (A1)
- read Roman numerals to 1000 (M) and recognise years written in Roman numerals. (A1)

Addition and Subtraction

- add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) (A2)
- add and subtract numbers mentally with increasingly large numbers (A2)
- use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy (A2)
- solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. (A2)
- solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign (A2)

Geometry

- identify 3-D shapes, including cubes and other cuboids, from 2-D representations (Su2)
- know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles (Su2)
- draw given angles, and measure them in degrees (o) (Su2)
- identify: angles at a point and one whole turn (total 360o), angles at a point on a straight line and   a turn (total 180o), other multiples of 90o (Su2)
- use the properties of rectangles to deduce related facts and find missing lengths and angles (Su2)
- distinguish between regular and irregular polygons based on reasoning about equal sides and angles. (Su2)
- ▯   identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed. (Su3)

Statistics

- solve comparison, sum and difference problems using information presented in a line graph (A3)
- complete, read and interpret information in tables, including timetables. (A3)

Multiplication and Division

- identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers (A4)
- know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers (A4)
- establish whether a number up to 100 is prime and recall prime numbers up to 19 (A4)
- multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers (A4) (Sp1) (Su1)
- multiply and divide numbers mentally drawing upon known facts (A4) (Sp1) (Su1)
- divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context (A4) (Sp1) (Su1)
- multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 (A4) (Sp1) (Su1)
- recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) (A4)
- solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes (A4) (Sp1)
- solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign (Sp1)
- solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. (A4) (Sp1)

Measurement

- measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres (A5) (Su5)
- calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes (A5) (Su5)
- estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water] (A5) (Su5)
- convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) (Su1) (Su4) (Su5)
- understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints (Su1) (Su4) (Su5)
- use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. (Su1) (Su4) (Su5)
- solve problems involving converting between units of time (Su4)

FDP

- compare and order fractions whose denominators are all multiples of the same number (Sp2)
- identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths (Sp2)
- recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$ (Sp2)
- add and subtract fractions with the same denominator and denominators that are multiples of the same number (Sp3)
- multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams (Sp3)
- read and write decimal numbers as fractions [for example, 0.71 = $\frac{71}{100}$] (Sp3)
- recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents (Sp3)
- round decimals with two decimal places to the nearest whole number and to one decimal place (Sp3)
- read, write, order and compare numbers with up to three decimal places (Sp3)
- recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal (Sp3)
- 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 fractions with a denominator of a multiple of 10 or 25. (Sp3)
- solve problems involving number up to three decimal places (Su1)