Year 6 Mathematical Statements	
Numbers and the number system	• identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places • read, write, order and compare numbers up to 10 000 000 and determine the value of each digit • use negative numbers in context, and calculate intervals across zero • identify common factors, common multiples and prime numbers • solve problems which require answers to be rounded to specified degrees of accuracy • use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy • round any whole number to a required degree of accuracy • generate and describe linear number sequences
Calculating:	• perform mental calculations, including with mixed operations and large numbers • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • solve problems involving addition, subtraction and multiplication • use their knowledge of the order of operations to carry out calculations • divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division; interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context • 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 • use written division methods in cases where the answer has up to two decimal places • solve problems involving division
Visualising and constructing	• draw 2-D shapes using given dimensions and angles • recognise, describe and build simple 3-D shapes, including making nets • compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons • illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius • 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 • recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles • describe positions on the full coordinate grid (all four quadrants) • draw and translate simple shapes on the coordinate plane, and reflect them in the axes
Algebraic proficiency: using formulae	• use simple formulae • convert between miles and kilometres • enumerate possibilities of combinations of two variables • express missing number problems algebraically • find pairs of numbers that satisfy an equation with two unknowns
Exploring time	•
Exploring fractions, decimals and percentages.	• use common factors to simplify fractions; use common multiples to express fractions in the same denomination • compare and order fractions, including fractions > 1 • associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $^3/_8$] • recall and use equivalences between simple fractions, decimals and percentages, including in different contexts • add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions • multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $^1/_4 \times ^1/_2 = ^1/_8$] • divide proper fractions by whole numbers [for example, $^1/_3 \div 2 = ^1/_6$] • multiply one-digit numbers with up to two decimal places by whole numbers • solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
Proportional reasoning	• solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts • solve problems involving similar shapes where the scale factor is known or can be found • solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
Presenting and measuring data	• interpret and construct pie charts and line graphs and use these to solve problems • calculate and interpret the mean as an average