

Year 6 Maths Curriculum	Name:			
Numbers and the number system				
read, write, order and compare numbers up to 10 000 000 and determine the value of each digit				
round any whole number to a required degree of accuracy				
use negative numbers in context, and calculate intervals across zero				
solve number and practical problems that involve all of the above				
Addition, subtraction, multiplication and division				
multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication				
perform mental calculations, including with mixed operations and large numbers				
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				
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				
identify common factors, common multiples and prime numbers				
use their knowledge of the order of operations to carry out calculations involving the four operations				
solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why				
solve problems involving addition, subtraction, multiplication and division				
use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.				
Fractions and decimals				
use common factors to simplify fractions; use common multiples to express fractions in the same denominator				
compare and order fractions, including fractions > 1				
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, $\frac{3}{4} \times \frac{1}{2} = \frac{3}{8}$]				
divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$]				
associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$]				
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				
multiply one-digit numbers with up to two decimal places by whole numbers				
use written division methods in cases where the answer has up to two decimal places				
solve problems which require answers to be rounded to specified degrees of accuracy				
recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.				
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				
solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison				
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.				
Algebra				
use simple formulae				
generate and describe linear number sequences				
express missing number problems algebraically				
find pairs of numbers that satisfy an equation with two unknowns				
enumerate possibilities of combinations of two variables.				
Measurement				
solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate				
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				
convert between miles and kilometres				
recognise that shapes with the same areas can have different perimeters and vice versa				
recognise when it is possible to use formulae for area and volume of shapes				
calculate the area of parallelograms and triangles				
calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm ³) and cubic metres (m ³), and extending to other unit[for example, mm ³ and km ³].				
Geometry				
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				
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				
Statistics				
interpret and construct pie charts and line graphs and use these to solve problems				
calculate and interpret the mean as an average.				