Leyland St James' CE Primary School

Year 6 Maths: Vocabulary and Content

Vocabulary	Content
Number and Place Value ***Vocabulary:*** *Factorise, prime number, digit total, mllion*	Read, write, order and compare numbers to at least 1,000,000 and demine the value of each digit. Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero and calculate intervals across zero. Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000, 100,000 and million with a required degree of accuracy. Solve problems and practical problems that involve all of the above.
Addition and Subtraction ***Vocabulary:***	Solve addition and subtraction multi-step problems in contexts; deciding which operations and methods to use and why. Use their knowledge of the order of operations to carry out calculations involving the four operations. Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
Multiplication and Division ***Vocabulary:***	Identify common factors, common multiples and prime numbers. Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication. Divide numbers up to 4 digits by a two-digit number using the formal written method of short division and long division where appropriate, interpreting remainders, fractions or rounding, as according to the context. Perform mental calculations, including with mixed operations and large numbers.
Fractions ***Vocabulary:***	Add and subtract fractions with the same denominator and denominators that are multiples of the same number, using the concept of equivalent fractions. Multiply simple pairs of proper fractions, writing the answer in its simplest form. Divide proper fractions by whole number. Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Compare and order fractions, including fractions >1. 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 decimals 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 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 ***Vocabulary:*** *Ratio*	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 calculation of percentages of measure 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 group using knowledge of fractions and multiples.
Algebra ***Vocabulary:*** *Formulae, equation, variable, unknown.*	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 ***Vocabulary:*** *Yard, foot, feet, inch, inches, circumference, tonne, pound, centilitre, cubic centimetres, cubic metres, cubic millimetre, cubic kilometres, Greenwich Mean Time, British Summer Time, International Date Line, profit, loss.*	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 measurement 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. Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres and recognise that shapes with the same area can have different perimeters and vice versa. Calculate and compare the area of rectangles (including squares), parallelograms and triangles and including using standard units, square centimetres and square metres and estimate the area of irregular shapes. Recognise when it is possible to use formulae for area and volume of shapes. Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres and cubic metres, and extending to other units –mm or km. Convert between miles and kilometres.
Geometry ***Vocabulary:*** *Circumference, concentric, arc net, open, closed, intersecting, intersection place, kit, dodecahedron, net, open, closed.*	Draw 2D shapes using given dimensions and angles. Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons. Identify: angles at a point and one whole turn total 360°, angles at a point on a straight line and half a turn total 180° and other multiples of 90°, recognise where angles meet at a point, are on a straight line, or are vertically opposite and find missing angles. Illustrate and name parts of a circle, including radius, diameter and circumference and know that the diameter is twice the radius.
Position and Direction ***Vocabulary:*** *Reflex angle.*	Describe positions on a full coordinate grid (all four quadrants). Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
Statistics ***Vocabulary:*** *Average, pie chart, mean, statistics, distribution, range as estimates.*	Interpret and construct pie charts and line graphs and use these to solve problems. Calculate and interpret the mean as an average.