Year 6 Maths Overview

Cathcart Street Primary School 2023-2024

Ready, Respectful, Safe

	Autumn 1	Spring 1	Summer 1
	Year 6 NC Objectives	**Year 6 NC Objectives**	**Year 6 NC Objectives**
Maths – 1st half term	**NUMBER: Place Value** • 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 the above **NUMBER: Addition & Subtraction – Multiplication and Division** • 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	**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 unequal sharing and grouping using knowledge of fractions and multiples • Solve problems involving similar shapes where the scale factor is known or can be found **Algebra** • Use simple formulae • Generate and describe linear number sequences • Find pairs of numbers that satisfy an equation with two unknowns • Enumerate possibilities of combinations of two variables • Express missing number problems algebraically **NUMBER: Decimals** • Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places • Solve problems which require answers to be rounded to specified degrees of accuracy	**GEOMETRY: Shape** • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles • 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 • Draw 2-D shapes using given dimensions and angles • Recognise, describe and build simple 3-D shapes, including making nets **Geometry: Position and Direction** • 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

		Multiply 1-digit numbers with up to 2 decimal places by whole numbers • Use written division methods in cases where the answer has up to 2 decimal places	
	Autumn 2	**Spring 2**	**Summer 2**
Maths – 2nd half term	**NUMBER: Fractions** • Use common factors to simplify fractions; use common multiples to express fractions in the same denomination • 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 • Divide proper fractions by whole numbers • Associate a fraction with division and calculate decimal fraction equivalents **MEASUREMENT: Converting Units** • Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 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 3 decimal places • Convert between miles and kilometres	**NUMBER: Fractions, Decimals and Percentages** • Use common factors to simplify fractions; use common multiples to express fractions in the same denomination • Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts • Compare and order fractions, including fractions >1 • Solve problems involving the calculation of percentages and the use of percentages for comparison **Measurement: Area, Perimeter and Volume** • 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 (cm3) and cubic metres (m3), and extending to other units **Statistics** • Interpret and construct pie charts and line graphs and use these to solve problems • Calculate and interpret the mean as an average	**Problem solving and Consolidation** • Solve number and practical problems. • Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison

Key vocabulary Building on KS1 and lower KS2 and Y5 maths vocabulary

	Number and Place Value	Addition and Subtraction	Multiplication and Division	Geometry (Position and Direction)	Geometry (Properties of Shape)	Fractions, Decimals and Percentages	Algebra
Vocabulary	numbers to ten million	order of operations	order of operations common factors common multiples interpret remainders common factors common multiples prime numbers	four quadrants in relation to coordinates translate shapes	vertically opposite angles circumference radius diameter	degree of accuracy simplify simplest form same denomination place value in numbers given to 3 decimal places (tenths, hundredths, thousandths)	formulae linear number sequence substitute variables symbol known values