



Mathematics Long Term Plan

Goldcrest 2026-2027

Autumn

	National Curriculum Objectives	Small Steps
Number: Place Value 2 weeks	- 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.	- Numbers to 1,000,000 - Numbers to 10,000,000 - Read and write numbers to 10,000,000 - Powers of 10 - Number line to 10,000,000 - Compare and order any integers - Round any integer - Negative numbers
Number: Addition, Subtraction, Multiplication and Division 5 weeks	- Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why. - Multiply multi-digit number up to 4 digits by a 2-digit number using the formal written method of long multiplication. - Divide numbers up to 4 digits by a 2-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 2-digit number using the formal written method of short division, interpreting remainders according to the context. - Perform mental calculations, including with mixed operations and large numbers. - Identify common factors, common multiples and prime numbers.	- Add and subtract integers - Common factors - Common multiples - Rules of divisibility - Primes to 100 - Square and cube numbers - Multiply up to a 4-digit number by a 2-digit number - Solve problems with multiplication - Short division - Division using factors - Introduction to long division - Long division with remainders - Solve problems with division - Solve multi-step problems - Order of operations - Mental calculations and estimation - Reason from known facts

	• Use their knowledge of the order of operations to carry out calculations involving the four operations. • 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.	
Number: Fractions A 2 weeks	• Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. • Compare and order fractions, including fractions > 1 • Generate and describe linear number sequences (with fractions) • Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions.	• Equivalent fractions and simplifying • Equivalent fractions on a number line • Compare and order (denominator) • Compare and order (numerator) • Add and subtract simple fractions • Add and subtract any two fractions • Add mixed numbers • Subtract mixed numbers • Multi-step problems
Number: Fractions B 2 weeks	• Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example $14 \times 12 = 18$] • Divide proper fractions by whole numbers [for example $13 \div 2 = 16$] • Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example 38] • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	• Multiply fractions by integers • Multiply fractions by fractions • Divide a fraction by an integer • Divide any fraction by an integer • Mixed questions with fractions • Fraction of an amount • Fraction of an amount - find the whole
Measurement: Converting Units 1 week	• 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 3dp.	• Metric measures • Convert metric measures • Calculate with metric measures • Miles and kilometres • Imperial measures

	• Convert between miles and kilometres.	
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Spring

	National Curriculum Objectives	Small Steps
Number: Ratio 2 weeks	- 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.	- Add or multiply? - Use ratio language - Introduction to the ratio symbol - Ratio and fractions - Scale drawing - Use scale factors - Similar shapes - Ratio problems - Proportion problems - Recipes
Number: Algebra 2 weeks	- 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.	1-step function machines 2-step function machines - Form expressions - Substitution - Formulae - Form equations - Solve 1-step equations - Solve 2-step equations - Find pairs of values - Solve problems with two unknowns
Number: Decimals 2 weeks	- Identify the value of each digit in numbers given to 3 decimal places and multiply numbers by 10, 100 and 1,000 giving answers up to 3 decimal places. - Multiply one-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. - Solve problems which require answers to be rounded to specified degrees of accuracy.	- Place value within 1 - Place value – integers and decimals - Round decimals - Add and subtract decimals - Multiply by 10, 100 and 1,000 - Divide by 10, 100 and 1,000 - Multiply decimals by integers - Divide decimals by integers - Multiply and divide decimals in context
Number: Fractions, Decimals and Percentages 2 weeks	- Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison. - Recall and use equivalences between simple fractions, decimals and percentages including in different contexts.	- Decimal and fraction equivalents - Fractions as division - Understand percentages - Fractions to percentages - Equivalent fractions, decimals and percentages - Order fractions, decimals and percentages - Percentage of an amount – one step - Percentage of an amount – multi-step - Percentages – missing values

Measurement: Area, Perimeter and Volume 2 weeks	• 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 cm^3, m^3 and extending to other units (mm^3, km^3)	• Shapes – same area • Area and perimeter • Area of a triangle – counting squares • Area of a right-angled triangle • Area of any triangle • Area of a parallelogram • Volume – counting cubes • Volume of a cuboid
Statistics 2 weeks	• Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. • Interpret and construct pie charts and line graphs and use these to solve problems. • Calculate the mean as an average.	• Line graphs • Dual bar graphs • Read and interpret pie charts • Pie charts with percentages • Draw pie charts • The mean

Summer

	National Curriculum Objectives	Small Steps
Geometry: Shape 3 weeks	• Draw 2-D 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. • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.	• Measure and classify angles • Calculate angles • Vertically opposite angles • Angles in a triangle • Angles in a triangle – special cases • Angles in a triangle – missing angles • Angles in quadrilaterals • Angles in polygons • Circles • Draw shapes accurately • Nets of 3-D shapes
Geometry: Position and Direction 1 week	• 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.	• The first quadrant • Read and plot points in four quadrants • Solve problems with coordinates • Translations • Reflections
Themed Projects, consolidation and problem solving 8 weeks		