



Brackenwood Junior School

Maths

Long Term Intent

Y6

2022/23

	Unit 1 - Place Value within 10,000,000	Unit 2 – Four operations	Unit 3 – Four operations	Unit 4 – Fractions	Unit 5 – Fractions	Unit 6 – Geometry – position and direction
Autumn	<ul style="list-style-type: none"> -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 	<ul style="list-style-type: none"> -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 -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 	<ul style="list-style-type: none"> -Recognise and use square numbers and cube numbers, and the notation for squared (²) and cubed (³) -Perform mental calculations, including with mixed operations and large numbers -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 problems involving addition, subtraction, multiplication and division 	<ul style="list-style-type: none"> -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 	<ul style="list-style-type: none"> -Use their knowledge of the order of operations to carry out calculations involving the four operations -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, $1/3 \div 2 = 1/6$] -Use written division methods in cases where the answer has up to two decimal places 	<ul style="list-style-type: none"> -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
	Unit 7 – Decimals	Unit 8 – Fractions	Unit 9 - Algebra	Unit 10 – Measure – imperial and metric measures	Unit 11 – Measure – perimeter, area and volume	Unit 12 – Ratio and proportion
Spring	<ul style="list-style-type: none"> -Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 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 	<ul style="list-style-type: none"> -Compare and order fractions, including fractions > 1 -Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $1/4 \times 1/2 = 1/8$] -Multiply one-digit numbers with up to two decimal places by whole numbers -Solve problems which require answers to be rounded to specified degrees of accuracy -Recall and use equivalences between simple fractions, 	<ul style="list-style-type: none"> -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 	<ul style="list-style-type: none"> -Solve problems involving the calculation and conversion of units of measure, using decimal notation to three decimal places where appropriate -Use, read, write and convert between standard units, converting measurements of length, mass, volume 	<ul style="list-style-type: none"> -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 	<ul style="list-style-type: none"> -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

	<p>giving answers up to three decimal places</p> <ul style="list-style-type: none"> -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 	<p>decimals and percentages, including in different contexts</p> <ul style="list-style-type: none"> -Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison 		<p>and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places</p> <ul style="list-style-type: none"> -Convert between miles and kilometres 	<p>metres (m³), and extending to other units [for example, mm³ and km³]</p>	<p>is known or can be found</p> <ul style="list-style-type: none"> -Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
	Unit 13 – Geometry – properties of shapes	Unit 14 Problem solving		Unit 15 - Statistics		
Summer	<ul style="list-style-type: none"> -Identify 3-D shapes, including cubes and other cuboids, from 2-D representations -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 	<ul style="list-style-type: none"> -Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why -Solve number and practical problems that involve all of the above -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, levels of accuracy -Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts -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 -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 -Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons 		<ul style="list-style-type: none"> -Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison -Interpret and construct pie charts and line graphs and use these to solve problems -Calculate and interpret the mean as an average 		

	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	-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)			
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