

Year 6 2023-24 Overview Maths

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
<p>Number and Place Value Number and Place value; decimal number</p> <ul style="list-style-type: none"> ➤ Read and write numbers up to 10 000 000 in figures and words. ➤ Determine the value of each digit in numbers up to 10 000 000. ➤ Order and compare numbers up to 10 000 000 including on a number line. ➤ Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000, 100 000. ➤ Round decimals with 2 and 3 decimal places up to the nearest whole number and 1 or 2 decimal place. ➤ Round any whole number (with up to 8 digits) to a required degree of accuracy. ➤ Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero. Use negative numbers in context, and calculate intervals across zero. ➤ Read Roman numerals to 1000 (M) and recognise years written as Roman numerals. ➤ Solve number problems and practical problems involving all of the above. ➤ Identify the value of each digit to 3 decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to 3 decimal places. 			<p>Multiplication and division; fractions</p> <ul style="list-style-type: none"> ➤ Identify common factors, common multiples and prime numbers. ➤ Multiply one digit numbers with up to 2 decimal places by whole numbers. ➤ Divide numbers up to 4 digits by a one digit number using short division and interpret the remainders appropriately in a context. ➤ Use written methods for division in cases where the answer has two decimal places. ➤ Solve problems which require answers to be rounded to degrees of accuracy. ➤ 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 including rounding to multiples of 10, 20 and 50 (links can be made to decimal remainders.) ➤ Use their knowledge of the order of operations to carry out calculations involving the four operations (BODMAS) ➤ Solve problems involving addition, subtraction, multiplication and division (including mental, jottings, written methods) ➤ Perform mental calculations with mixed operations and large numbers ➤ Use estimation to check answers to calculations and determine, in the context of a problem, and degrees of accuracy. 			<p>Geometry: Position and direction</p> <ul style="list-style-type: none"> ➤ Describe position on a 2-D grid as coordinates in the first quadrant ➤ Describe movements between positions as translations of a given unit to the left/right and up/down ➤ Plot specified points and draw sides to complete a given polygon Identify, describe and represent the 		<p>Half term</p>	<p>Fractions; percentages 3/4 weeks</p> <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 ➤ , using the concept of equivalent fractions. Add and subtract fractions with different denominators and mixed numbers ➤ Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. ➤ Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$] ➤ 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, $\frac{3}{8}$] ➤ Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. ➤ Solve problems which require knowing percentage and decimal equivalents of ($\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}$) and those with a denominator of a multiple of 10 or 25. ➤ Solve problems involving the calculations of percentages (e.g. of measures) such as 15% of 360 and the use of percentages for comparison 			<p>Ratio and proportion.</p> <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 is known or can be found. Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. 		

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		position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not change				
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Spring Term														
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6		
<p><u>Measurement (4 weeks)</u></p> <ul style="list-style-type: none"> ➤ Convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre] ➤ 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 ➤ Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate ➤ Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints ➤ Convert between miles and kilometres ➤ Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres ➤ Calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm²) and square metres (m²), and estimate the area of irregular shapes ➤ 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 ➤ Estimate volume (for example using 1cm³ blocks to build cuboids and capacity. ➤ 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 [for example, mm³ and km³]. ➤ Tell and write the time from an analogue clock, including clocks with Roman numerals with increasing accuracy to the nearest minute. 				<p><u>Statistics</u></p> <ul style="list-style-type: none"> ➤ Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs ➤ Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. <p>Relate the graphical representation of data to represent change over time</p> <ul style="list-style-type: none"> ➤ Solve comparison, sum and difference problems using information presented in a line graph ➤ Complete, read and interpret information in tables, including timetables ➤ Interpret and construct pie charts and line graphs and use these to solve problems <p>Calculate and interpret the mean as an average</p>		Half term	<p><u>Geometry: Properties of shape</u></p> <p>4 weeks</p> <p><u>Geometry: Properties of shape</u></p> <ul style="list-style-type: none"> ➤ Compare and classify geometric shapes, including quadrilaterals and triangles based on their properties. ➤ Identify 3-D shapes, including cubes and other cuboids, from 2-D representations ➤ Distinguish between regular and irregular polygons based on reasoning about equal sides and angles (looking at this point rather than measuring.) ➤ Identify 3-D shapes, including cubes and other cuboids, from 2-D representations ➤ Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles ➤ Draw given angles, and measure them in degrees (o) ➤ Identify: angles at a point and one whole turn (total 360o), angles at a point on a straight line and 2 1 a turn (total 180o), other multiples of 90o, ➤ Use the properties of rectangles to deduce related facts and find missing lengths and angles ➤ Distinguish between regular and irregular polygons based on reasoning about equal sides and angles ➤ 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. 				<p><u>Algebra</u></p> <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. 			

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Summer Term													
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
▶				▶		Half term	▶			Assessment Week	▶		