

Year 5

BIA Mathematics
Term by Term
Scheme of Work



الأكاديمية الإسلامية البريطانية
BRITISH ISLAMIC
ACADEMY

Math Term by Term Objectives



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BRITISH ISLAMIC
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Year 5

Year 5 Overview August to May ⁽¹⁾

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number – Place Value			Number – Addition and Subtraction			Number – Multiplication and Division				Statistics	
Spring	Number - Fractions					Number - Decimals			Number - Percentages			
Summer	Geometry- Angles		Geometry- Shapes		Geometry- Position and Direction	Measurement- Converting Units		Number- Prime Numbers	Perimeter and Area	Measures Volume		

(1) Subject to change. Please visit the website or call-in for regular updates.

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Year group	5	Term	Autumn
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Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<p><i>Number – place value</i> Read, write, order and compare numbers to at least 1000000 and determine the value of each digit.</p> <p>Count forwards or backwards in steps of powers of 10 for any given number up to 1000000.</p> <p>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero.</p> <p>Round any number up to 1000000 to the nearest 10, 100, 1000, 10000 and 100000</p> <p>Solve number problems and practical problems that involve all of the above.</p> <p>Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.</p>			<p><i>Number- addition and subtraction</i> Add and subtract numbers mentally with increasingly large numbers.</p> <p>Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)</p> <p>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.</p> <p>Solve addition and subtraction multi-step problems in contexts deciding which operations and methods to use and why.</p>			<p><i>Number – multiplication and division</i> Multiply and divide numbers mentally drawing upon known facts.</p> <p>Multiply and divide whole numbers by 10, 100 and 1000.</p> <p>Multiply numbers up to 4 digits by a one or two digit number using a formal written method, including long multiplication for 2 digit numbers.</p> <p>Divide numbers up to 4 digits by a one digit number using the formal written method of short division and interpret remainders appropriately for the context.</p> <p>Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.</p> <p>Recognise and use square numbers and cube numbers and the notation for squared (2) and cubed (3)</p> <p>Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.</p> <p>Solve problems involving addition and subtraction, multiplication and division and a combination of these, including understanding the use of the equals sign.</p>			<p><i>Statistics</i> Solve comparison, sum and difference problems using information presented in a line graph.</p> <p>Complete, read and interpret information in tables including timetables.</p>		

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Year group	5	Term	Spring
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Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<p><u>Number: Fractions</u> Compare and order fractions whose denominators are multiples of the same number.</p> <p>Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths.</p> <p>Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example $1\frac{1}{2} = 1\frac{1}{2}$]</p> <p>Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</p> <p>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</p> <p>Read and write decimal numbers as fractions [for example $0.71 = \frac{71}{100}$]</p> <p>Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</p>					<p><u>Number: Decimals</u> Read, write, order and compare numbers with up to three decimal places.</p> <p>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.</p> <p>Round decimals with two decimal places to the nearest whole number and to one decimal place.</p> <p>Solve problems involving number up to three decimal places.</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</p> <p>Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.</p>			<p><u>Number: Percentages</u> Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal.</p> <p>Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{10}$, $\frac{1}{20}$ and those fractions with a denominator of a multiple of 10 or 25.</p>		<p><u>Time at the beginning or end of the term for consolidation, gap filling, seasonal activities, assessments, etc.</u></p>	

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Year group	5	Term	Summer
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Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12				
<p><u>Geometry- Angles</u> Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.</p> <p>Draw given angles, and measure them in degrees ($^{\circ}$)</p> <p>Identify: angles at a point and one whole turn (total 360°), angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°) other multiples of 90°</p>		<p><u>Geometry- Shapes</u> Identify 3D shapes, including cubes and other cuboids, from 2D representations.</p> <p>Use the properties of rectangles to deduce related facts and find missing lengths and angles.</p> <p>Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</p>		<p><u>Geometry- position and direction</u> Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.</p>		<p><u>Measurement- converting units</u> Convert between different units of metric measure (for example, km and m; cm and m; cm and mm; g and kg; l and ml)</p> <p>Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.</p> <p>Solve problems involving converting between units of time.</p>		<p><u>Number- Prime Numbers</u> Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.</p> <p>Establish whether a number up to 100 is prime and recall prime numbers up to 19</p>		<p><u>Perimeter and Area</u> Measure and calculate the perimeter of composite rectilinear shapes in cm and m.</p> <p>Calculate and compare the area of rectangles (including squares), and including using standard units, cm^2, m^2 estimate the area of irregular shapes.</p>		<p><u>Measures Volume</u> Estimate volume [for example using 1cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water]</p> <p>Use all four operations to solve problems involving measure</p>		<p><i>Time at the beginning or end of the term for consolidation, gap filling, seasonal activities, assessments, etc.</i></p>	