

## Maths Year 8 Learning Journey 2024-2025

Week	Date	Key Constructs	Component Knowledge	Assessment
1 (Thu)	05.09.24		<ul style="list-style-type: none"> <li><b>INTRO to the year ahead inc SPARX Lesson</b></li> </ul>	
2	09.09.24	<b>Sequences</b>	<ul style="list-style-type: none"> <li>Identify patterns and missing terms in sequence</li> <li>Describe term to term rules</li> <li>Generate terms of sequences from either term-to-term or position-to-term rules</li> <li>Recognise Geometric sequences</li> <li>Identify sequences involving square &amp; triangle numbers</li> <li>Identify Fibonacci style sequences</li> </ul>	<b>Unit 1 Review</b>
3	16.09.24			
4	23.09.24	<b>Graphs</b>	<ul style="list-style-type: none"> <li>Plotting Straight Line graphs from tables using both positive and negative quadrants</li> <li>Drawing and interpreting Real-life graphs that model situations</li> </ul>	<b>Unit 2 Review</b>
5	30.09.24			
6	07.10.24			
7	14.10.24	<b>Angles</b>	<ul style="list-style-type: none"> <li>Understand &amp; use the relationship between Parallel Lines, Alternate, Corresponding &amp; Allied angles</li> <li>Understand and use the properties of regular Polygons and their angles</li> <li>Derive &amp; use the sum of angles in a triangle and use it to deduce the angle sum in any polygon, and to derive properties of regular polygons.</li> </ul>	<b>Unit 3 Review</b>
8	21.10.24			
<b>Half term</b>				
9	04.11.24	<b>Constructions</b>	<ul style="list-style-type: none"> <li>Measure and draw bearings</li> <li>Use scale factors, scale diagrams and maps</li> <li>Draw and measure line segments and angles in geometric figures</li> <li>Draw and interpret Scale Drawings</li> <li>Construction accurate diagrams using ruler &amp; protractor</li> <li>Construct triangles given two sides and angle</li> <li>Construct triangles given two angles and a side</li> </ul>	<b>Unit 4 Review</b>
10	11.11.24			
11	18.11.24	<b>Calculations</b>	<ul style="list-style-type: none"> <li>Use the 4 operations applied to integers</li> <li>Use the 4 operations on decimals to; Multiply and Divide Decimals</li> </ul>	<b>Unit 5 Review</b>
12	25.11.24			
13	02.12.24	<b>Negative Numbers</b>	<ul style="list-style-type: none"> <li>Use the number line as a model for ordering real numbers</li> <li>Understand and use symbols =, ≠, &lt;, &gt;, ≤, ≥.</li> <li>Use the 4-operations applied to integers to; Add and subtract Negative Numbers</li> <li>Multiply and Divide Negative Numbers</li> </ul>	<b>Unit 6 Review</b>
14	09.12.24			
15	16.12.24		<b>Revision and Prep</b>	<b>End of Term 1 Progress Test</b>
<b>CHRISTMAS</b>				
16	06.01.25	<b>Fractions</b>	<ul style="list-style-type: none"> <li>Identify and simplify equivalent fractions</li> <li>Use the 4-operations applied to fractions to; Add &amp; subtract Fractions, Find fractions of amounts, Multiply &amp; Divide Fractions</li> </ul>	<b>Unit 7 Review</b>
17	13.01.25			
18	20.01.25	<b>Expressions and Formulas</b>	<ul style="list-style-type: none"> <li>Use &amp; interpret algebraic notation including: <math>ab</math> in place of <math>a \times b</math>; <math>3y</math> in place of <math>y + y + y</math> and <math>3 \times y</math>; <math>a^2</math> in place of <math>a \times a</math>, <math>a^3</math> in place of <math>a \times a \times a</math>; <math>a^2b</math> in place of <math>a \times a \times b</math>; <math>a/b</math> in place of <math>a \div b</math>;</li> <li>Evaluate by substituting numerical values into formulas and expressions</li> </ul>	<b>Unit 8 Review</b>

19	27.01.25		<ul style="list-style-type: none"> <li>Simplify and manipulate algebraic expressions to maintain equivalence by: collecting like terms; multiplying a single term over a bracket; taking out common factors</li> <li>Expand brackets and Factorise algebraic expressions by identifying common factors</li> <li>Rearrange Formulas to change the subject</li> </ul>	
20	03.01.25	<b>Equations</b>	<ul style="list-style-type: none"> <li>Use algebraic methods to solve linear equations in one variable</li> </ul>	<b>Unit 9 Review</b>
21	10.02.25		<ul style="list-style-type: none"> <li>Solve equations with unknowns on both sides</li> <li>Solve Equations involving Brackets</li> </ul>	
<b>Half term</b>				
22	24.02.25	<b>Working with 2D Shapes</b>	<ul style="list-style-type: none"> <li>Identify &amp; illustrate properties of Triangles &amp; Quadrilaterals. [e.g. equal lengths &amp; angles] using appropriate language.</li> </ul>	<b>Unit 10 Review</b>
23	03.03.25		<ul style="list-style-type: none"> <li>Find the area &amp; perimeter of shapes made from triangles &amp; rectangles</li> <li>Find area of triangles, trapeziums &amp; parallelograms</li> </ul>	
24	10.03.25	<b>Properties of 3D Shapes</b>	<ul style="list-style-type: none"> <li>Identify &amp; use properties of faces, surfaces, edges &amp; vertices of cubes, cuboids, prisms, cylinders, pyramids, cones &amp; spheres to solve problems in 3D</li> </ul>	<b>Unit 11 Review</b>
25	17.03.25		<ul style="list-style-type: none"> <li>Draw and identify Nets of 3D shapes</li> <li>Calculate Surface Area &amp; Volume of Cubes &amp; Cuboids</li> </ul>	
26	24.03.25	<b>Percentages</b>	<ul style="list-style-type: none"> <li>Convert between fractions decimals &amp; percentages</li> <li>Calculate percentages of amounts including simple interest in financial mathematics.</li> </ul>	
27	31.03.25		<ul style="list-style-type: none"> <li>Calculate Percentage increase &amp; decrease to solve original value problems</li> <li>Calculate Percentage Change including profit &amp; loss.</li> </ul>	
<b>EASTER</b>				
28(BH)	21.04.25		<b>Exam Prep</b>	<b>Annual Exams</b>
29	28.04.25		<b>Annual Exams</b>	
30(BH)	06.05.25		<b>RAP/ addressing misconceptions</b>	
31	12.05.25	<b>Multiplicative Reasoning</b>	<ul style="list-style-type: none"> <li>Use ratio notation, including simplifying ratios</li> <li>To divide quantities in a given ratio</li> <li>Solve problems involving direct and inverse proportion, including graphical and algebraic representations.</li> </ul>	<b>Unit 13 Review</b>
32	19.05.25		<ul style="list-style-type: none"> <li>Understand &amp; interpret Conversion Graphs to convert units.</li> <li>Evaluate Value for Money problems using direct and inverse proportion</li> </ul>	
<b>Half term</b>				
33	02.06.25	<b>Working with Data</b>	<ul style="list-style-type: none"> <li>Calculate mean, median, mode and range from Frequency Tables.</li> </ul>	<b>Unit 14 Review</b>
34	09.06.25		<ul style="list-style-type: none"> <li>Construct &amp; interpret appropriate tables, charts, &amp; diagrams, including frequency tables &amp; pie charts.</li> </ul>	
35	16.06.25	<b>Circles</b>	<ul style="list-style-type: none"> <li>Identify parts of a circle</li> <li>Calculate and solve problems involving Circumference of a circle and areas of circles</li> </ul>	<b>Unit 15 Review</b>
36	23.06.25	<b>Pythagoras' Theorem</b>	<ul style="list-style-type: none"> <li>Apply angle facts, triangle congruence, similarity &amp; properties of quadrilaterals to derive Pythagoras' Theorem</li> </ul>	<b>Unit 16 Review</b>
37	30.06.25		<ul style="list-style-type: none"> <li>Use Pythagoras' Theorem to solve problems involving right-angled Triangles</li> </ul>	
38	07.07.25	Summer Project	Summer Project	
39	14.07.25	Activities week	Activities week	

<b>Name:</b>		<b>Autumn</b>	<b>Spring</b>	<b>Summer</b>
<b>Subject Target</b>		<b>Flightpath</b>		
<b>Annual Exam Grade:</b>		<b>BFL</b>		

<b>Date</b>	<b>Assessment</b>	<b>% score</b>	<b>Action (s) to make progress</b>
	Sequences		
	Graphs		
	Angles		
	Constructions		
	Calculations		
	Negative Numbers		
	End of Term 1 Progress Test		
	Fractions		
	Expressions and Formulas		
	Equations		
	2D and 3D Shapes		
	End of Term 2 Progress Test		
	Percentages		
	Annual Exam		
	Multiplicative Reasoning		
	Working With Data		
	Circles		
	Pythagoras Theorem		

