Maths Year 9 Learning Journey 2024-2025

Week	Date	Key Constructs	Component Knowledge	Assessment
1 (Thu)	05.09.24		INTRO to the year ahead including SPARX	
2	09.09.24	**Powers and indices**	• Apply Index notation using Laws of Indices • Converting numbers using Standard form • Writing integers as a product of Prime factors • Find LCM and HCF of two integers	**Unit 1 Review**
3	16.09.24			
4	23.09.24	**Fractions**	• Identify equivalent Fractions by x or ÷ • Using the 4 operations on fractions to; Add, Subtract, Multiple and Divide Fractions • Understanding Mixed numbers • Converting between Mixed numbers and Improper Fractions	**Unit 2 Review**
5	30.09.24			
6	07.10.24	**Accuracy**	• Round numbers & measures to Significant figures • Estimate Calculations using Rounding • Find Upper and Lower Bounds of Accuracy	**Unit 3 Review**
7	14.10.24			
8	21.10.24	**Percentages**	• Find Percentages of Amounts Consolidation • Use multipliers to calculate percentage increase or decrease	
		Half term		
9	04.11.24		• Find the original price or size using Reverse Percentages • Calculate Percentage Profit and Loss	**Unit 4 Review**
10	11.11.24	**Ratio and proportion**	• Find equivalent Ratios • Sharing amounts in a given ratio • Using a graph to show Direct proportion • Derive a formula from 2 quantities that are directly proportional • Express Inversely proportional relationships in the form $xy = k$	**Unit 5 Review**
11	18.11.24			
12	25.11.24	**Using measures**	• Calculate Average Speed using compound measures • Calculate Density using formula • Convert between metric units of area and volume	**Unit 6 Review**
13	02.12.24			
14	09.12.24			
15	16.12.24		**Exam prep, revision and RAP**	**End of Term Assessment**
		CHRISTMAS		
16	06.01.25	**Graphs**	• Calculate the Gradient of a line • Find the Equation of a straight-line in the form $y=mx+c$ • Draw quadratic graphs from a table of values	**Unit 8 Review**
17	13.01.25			
18	20.01.25			
19	27.01.25	**Real-life graphs**	• Draw and interpret Distance-time graphs • Interpret real-life graphs both linear & non-linear	**Unit 9 Review**
20	03.01.25			
21	10.02.25			
		Half term		
22	24.02.25	**Transformations**	• Translate an object using vector notation • Reflect an object on a coordinate grid using a line of reflection • Identify the reflection line and its equation • Rotate shapes around a coordinate grid • Enlarge an object using scale factors • Describe fully single transformations	**Unit 10 Review**
23	03.03.25			
24	10.03.25	**Prisms and cylinders**	• Find Volume of Prisms including cubes & cuboids • Find Volume of a cylinder using formula $V=\pi r^2 h$ • Find Surface area of a Prism • Find Surface area of a Cylinder	**Unit 11 Review**
25	17.03.25			
26	24.03.25	**Trigonometry**	• Identify Similar shapes through enlargement • Identify and label sides of right-angled triangles from working angles	**End of Term Assessment**
27	31.03.25			

			• Use Sin Cos and Tan ratios to find missing sides of right-angles triangles • Use trigonometry to find a missing angle • Us trigonometry to Solve problems	
EASTER				
28(BH)	21.04.25	**Constructions**	• Construct Triangles using ruler, protractor and compass. • Find the perpendicular Bisector of a line • Construct a perpendicular from a point on a line and from a point to a line • Use a compass to Bisect an angle • Solve problems using constructions • Identify Congruent triangles using SSS, SAS, ASA	
29	28.04.25		Exam prep	**Annual Exams**
30(BH)	06.05.25		Annual Exams	
31	12.05.25		RAP/ addressing misconceptions	
32	19.05.25	**Probability**	• List all possible outcomes for two or more events. • Complete and use Probability space diagrams to solve problems involving two events • Represent events in Venn diagrams • Use Venn diagrams to calculate probabilities and solve problems • Generate sample spaces for equally likely outcomes for mutually exclusive events. • Use theoretical sample spaces for several events to solve probability problems.	**Unit 15 Review**
Half term				
33	02.06.25	**GCSE Unit 2: Algebra**	• Use correct algebraic notation • Write and simplify expressions • Use the index laws • Multiply and divide expressions • Substitute into expressions • Write more complex expressions • Recognise the difference between a formula and an expression. • Write and use formulae • Use smaller numbers to help you see a pattern • Expand brackets • Simplify expressions with brackets • Write and use formulae with brackets • Factorise algebraic expressions • Use the identity symbol ≡ and the not equal to symbol ≠ • Write expressions and simple formulae • Use maths and science formulae	**(KS3 Unit 7) GCSE unit 2- Algebra**
34	09.06.25			
35	16.06.25			
36	23.06.25	**GCSE Unit 3: Graphs, tables & charts**	• Designing tables and data collection sheets • Readings data from tables • Use data from tables • Design and use two-way tables • Draw and interpret comparative and composite bar charts • Interpret and compare data shown in bar charts, line graphs and histograms • Plot and interpret timeseries graphs • Use trends to predict what might happen in the future • Construct and interpret stem and leaf and back-to-back stem and leaf diagrams • Draw and interpret pie charts • Plot and interpret Scatter graphs • Determine whether or not there is a relationship between two sets of data • Draw a line of best fit on a scatter graph • Use the line of best fit to predict values	**(KS3 Unit 14) GCSE unit 3- Graphs, tables & charts**
37	30.06.25			
38	07.07.25			
39	14.07.25		Activities week	

Name:				Summer Y8	Autumn	Spring	Summer
Subject Target:		Flightpath					
Annual Exam Grade:		BFL					

Date	Assessment	% score	Action (s) to make progress
	Powers and indices		
	Fractions		
	Accuracy		
	Percentages		
	Ratio and proportion		
	Using measures		
	End of Term Assessment		
	Graphs		
	Real-life graphs		
	Transformations		
	Prisms and cylinders		
	Trigonometry		
	End of Term Assessment		
	Constructions		
	Annual Exams		
	Probability		
	GCSE Unit 2: Algebra		
	GCSE Unit 3: Graphs, tables and charts		