Armthorpe Academy – Department 'Scheme of Learning'

For the benefit of this document Learning Outcomes:

- *Are measurable and capable of being assessed*
- *Are learner-centric*
- *Must be based on the desired outcome of the educational activity*
- *Provide measurable evidence of progress in closing the practice gap*
- *Are an outcomes-based approach*
- *Are explicit descriptions of what a learner should know, be able to apply and/or be able to do as a result of participating in the educational activity*
- *Frame the context for objectives (why is it important to "list", "discuss" or "state" information?)*

Year 7 (4 lessons p/week)

Week Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Topic/Theme	Number			Factors and Multiples			Area and Volume			Fractions Decimals and Percentages			Expressions			Percentages		Charts and averages				Shapes and Angles			Ratio			Review	Equations				Sequences			Graphs			Review
Learning Outcomes	Types of Number Adding and Subtraction Multiplication and Division Negative Numbers Using an answer Order of operations (BIDMAS)			Factors and Multiples Prime Factor Decomposition Rounding and Significant Figures Approximate Calculations Using a Calculator			Area/Perimeter Triangles, Parallelograms and Trapeziums Area/Circumference of a circle Surface Area and Volume			Equivalent fractions Improper fractions /Mixed Numbers Adding/Subtracting Fractions Multiplying/Dividing Fractions Finding Percentages of Quantities Converting between Fractions, Decimals and Percentages Fractions of Quantities/ Problem solving			Substitution Simplifying Expressions Problem solving Expanding brackets Factorising Solving Equations					Collection of Data Displaying data Pie Charts Scatter graphs Calculating Averages				Properties of quadrilaterals Length and angle measurements Angles about a point, on a straight line and in a triangle Angles on parallel lines Identify plans and elevations and produce 3D drawings			Simplifying Ratios Sharing using a ratio Ratios with ingredients Maps & Prices Bar modelling				Substitution Solving Equations- standard 2/3 step Solving equations with variables on both sides Forming and solving equations.				Recognising and continuing Patterns Find the nth term of a linear sequence Use the nth term to generate a sequence			Coordinates Finding the Mid-point of a line Drawing Straight line graphs Distance time graphs			
Assessment	Baseline Test week 1 End of unit fluency check			End of unit Fluency check			End of unit Fluency check			End of unit Fluency check			Consilium Assessment 1 End of unit Fluency check			End of unit Fluency check		End of unit Fluency check				End of unit Fluency check			Consilium Assessment 2 End of unit Fluency check				End of unit Fluency check			End of unit Fluency check			End of unit Fluency check		
Gatsby / SMSC	Discuss how different types of numbers and operations are used in various professions such as engineering, finance, and computer science.			Explore careers in fields like architecture and software development where understanding prime factorisation and approximation is crucial.			Highlight the importance of area and volume calculations in construction, design, and environmental science.			Discuss real-world applications such as financial analysis, medicine dosage calculations, and data interpretation.			Introduce algebraic problem-solving in technology, science research, and business logistics.			Show how percentages are used in banking, retail, and marketing analytics.		Emphasise data visualisation in professions like market research, epidemiology, and sports analytics.				Explore the role of geometry in fields such as art, architecture, and robotics.			Discuss how ratios are used in culinary arts, pharmacology, and economics.				Highlight the significance of pattern recognition in coding, logistics, and algorithm design.				Explore careers in navigation, urban planning, and transportation engineering.			Summarise how graphing techniques are applied in business analytics, physics, and geography.			

Year 8 (4 lessons p/week)

Week Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Topic/Theme	Number		Area and Volume			Expressions			Fractions Decimals and Percentages			Probability			Equations				Shapes and Angles				Ratio		Pythagoras and Trigonometry				Graphs		Sequences		Charts and Averages				Transformations		Review
Learning Outcomes	Rounding Estimation Error Intervals		Polygons Area and circumference of Circles Arcs and sectors Compound shapes Surface area and volume of right prisms Volume and surface area of prisms and cylinders Density and pressure			Expressions, collecting like terms and substitution Expanding single brackets Expanding and simplifying Factorising Expanding double brackets Expanding double brackets with ax2 where a > 1 expanding and simplifying double brackets factorising quadratics Identities			Basic fractions Multiply and divide fractions Add and subtract fractions Compare fractions, decimals and percentages Calculate percentages of amounts Increase/ decrease by a percentage			Probability scale Probability experiments Equally likely outcomes sample space diagrams using 'and' 'or' use probability in context			Substitute and solve Basic equations Solve equations Construct and solve equations Inequalities Solve inequalities Change the subject More changing the subject				Quadrilaterals Basic angle facts Angles in parallel lines Parallel lines Nets Plans and elevations				Ratio Proportion in recipes Scales and maps Using ratio Ratio and proportion in context		Pythagoras theorem Pythagoras theorem – short side Introduction to trigonometry Using trigonometry Using trigonometry Right angled triangle problems				Coordinates and mid-points Straight line graphs Finding the gradient Non-linear graphs Distance-time graphs		Finding the nth term Using the nth term Patterns in diagrams nth term of quadratic sequences		Charts Scatter graphs Use charts and graphs Averages Averages from tables Comparing data				Translation Reflection and rotation Enlargement Describing transform-ations Similar and congruent shapes		
Assessment	End of unit Fluency check		End of unit Fluency check			End of unit Fluency check			Consilium Assessment 1 End of unit Fluency check			End of unit Fluency check			End of unit Fluency check				End of unit Fluency check				End of unit Fluency check		Consilium Assessment 2 End of unit Fluency check				End of unit Fluency check		End of unit Fluency check				End of unit Fluency check		
Gatsby / SMSC	Discuss the importance of estimation and rounding in fields like construction, engineering, and finance.		Highlight the applications of area and volume calculations in architecture, product design, and environmental engineering.			Introduce how algebraic manipulation is used in computer science, engineering, and economics.			Discuss the relevance of fractions in cooking, pharmacology, and financial budgeting. Show how percentages are crucial in retail, banking, and data analysis.			Emphasise the use of probability in fields like insurance, gaming, and market research.			Explore the role of solving equations in physics, engineering, and economics.				Discuss the importance of understanding shapes and angles in art, architecture, and robotics.				Highlight the use of ratios in cooking, chemistry, and map reading.		Show how trigonometry is applied in fields like surveying, navigation, and astronomy.				Discuss the importance of graphing in data science, business analytics, and transportation.		Explore how sequences are used in algorithm design, logistics, and financial planning.		Emphasise the use of statistical charts and averages in market research, public health, and sports analytics.				Discuss the role of transformations in graphic design, architecture, and physics.		

Year 9 (4 lessons p/week) (A) Band

Week Number	1 2 3	4 5	6 7 8	9 10 11 12	13 14	15 16	17 18 19 20	21 22 23	24 25 26 27	28 29 30	31 32 33 34	35 36 37 38	39
Topic/Theme	Factors and Multiples	Indices and Standard form	Expressions	Linear Equations	Charts and Averages	Area and Volume 1	FDP	Ratio	Angles and Shapes	Pythagoras and Trigonometry	Sequences and Graphs	Probability	Review
Learning Outcomes	Adding and Subtraction Multiplication Division Negative Numbers Problems with Negatives Prime Factors Rounding Estimation Error Intervals	Types of Number Indices Combining Indices Index Problems Standard Form Using Standard Form	Expressions Expanding Brackets Combining Brackets Factorising Double Brackets Using Double Brackets Factorising Quadratics Factorising Quadratics Difference of Two Squares	Substitution Linear Equations Linear Problems Inequations Changing the Subject	Types of Data Two-way Tables Charts Pie Charts Scatter Graphs Averages from Groups Average Problems	Area Parallelogram and Trapezium Using Area Circles Volume of a Prism Surface Area of a Prism	Equivalent fractions Multiplying and Dividing Fractions Adding and Subtracting Fractions Fractions, Decimals and Percentages Fractions, Decimals and Percentages Percentages Changing Percentages Percentage Change Reverse Percentages	Ratio Proportion in recipes Scales and maps Using ratio Proportion Timetables Speed Density Pressure Compound Measures	Polygons Exterior Angles Angle Problems Parallel Lines Angle Problems	Pythagoras' Theorem Pythagoras' Theorem Problems in Triangles Angles – Tangent Sides – Tangent Trigonometry – Angles Trigonometry – Sides Right Angled Triangles	Sequences Linear Sequences Non-Linear Sequences Geometric Sequences Fibonacci Sequences Sequences	Probability scale Probability experiments Experimental Probability Sample space diagrams Tree Diagrams Conditional Tree Diagrams Venn Diagrams Venn Diagrams and Probabilities	
Assessment	End of unit Fluency check	End of unit Fluency check	End of unit Fluency check	End of unit Fluency check	Consilium Assessment 1 End of unit Fluency check	End of unit Fluency check	End of unit Fluency check	End of unit Fluency check	Consilium Assessment 2 End of unit Fluency check	End of unit Fluency check	End of unit Fluency check	End of unit Fluency check	
Gatsby / SMSC	Prime factors in data encryption (cybersecurity and IT). Multiples used in manufacturing processes to determine batch sizes or material usage.	Indices in engineering for power calculations (electrical, mechanical). Standard form in science and astronomy for representing very large or small numbers.	Simplifying expressions to solve real-life problems in physics (e.g., motion equations) and business for calculating interest or break-even points.	Linear equations used in budgeting, determining costs, and in physics to represent relationships between variables like speed, distance, and time.	Data visualisation in careers like business analysis, healthcare (tracking patient recovery rates), and sports analytics (player performance, team statistics).	Calculating area and volume in architecture, interior design, and product packaging industries (e.g., how much paint is needed for a surface or the capacity of a box).	Financial calculations such as interest rates, loans, taxes, and discounts in retail or banking. Percentages used in data analytics to represent changes over time.	Scaling in recipes (food industry), mixing chemicals in pharmaceuticals, and ratios in map reading for geographic or military operations.	Construction and architecture (determining angles for structures), navigation using angles (aviation and maritime sectors), and design work in art and graphics.	Essential for surveying, engineering, and construction projects (e.g., calculating distances or heights). Navigation systems (aircraft, ships) rely on trigonometric principles.	Predictive modeling in finance (stock market trends), biological growth models, and environmental science for population or resource tracking.	Decision-making in insurance and risk management, determining likelihoods in health science (disease outbreaks), and gaming industries (probability in gaming algorithms).	

Year 9 (4 lessons p/week) (B) Band

Week Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Topic/Theme	Factors and Multiples			Number and calculations		Expressions			Linear Equations				Charts and Averages		Area and Volume 1		FDP				Ratio			Angles and Shapes			Pythagoras and Surds			Trigonometry			Sequences and Graphs			Probability			Transformations	
Learning Outcomes	Prime Factors Calculations Calculator Methods Rounding Estimation Upper and Lower Bounds Using Bounds			Indices Combining Indices Index Problems Standard Form Using Standard Form		Expressions Expanding Brackets Factorising Double Brackets Using Double Brackets Factorising Quadratics Factorising Quadratics Difference of Two Squares Factorising 2x^2			Linear Equations Linear Problems Inequations Changing the Subject				Tables for Data Sampling Capture Recapture Bar and Pie Charts Scatter Graphs Averages Averages from Groups Average Problems Histograms Using Histograms		Area Using Area Circles Area of a triangle Arcs and Sectors Arcs and Sectors Volume of a Prism Surface Area of a Prism Using Volume and Surface Area		Fractions Multiplying and Dividing Fractions Adding and Subtracting Fractions Fractions, Decimals and Percentages Fractions, Decimals and Percentages Recurring Decimals Further practice of fraction or FDP conversions as required. Application of content to solve meaningful problems if ready. Solve problems involving fractions and calculations with fractions Percentages Changing Percentages Percentage Change Reverse Percentages				Ratio Speed Density Pressure Compound Measures Direct Proportion Inverse Proportion			Polygons Exterior Angles Angle Problems Parallel Lines Angle Problems			Pythagoras' Theorem Pythagoras' Theorem Problems in Triangles Surds Expanding Surds Rationalising Surds Rationalising Surds			Angles – Tangent Sides – Tangent Trigonometry – Angles Trigonometry – Sides Trigonometry – Sides Right Angled Triangles Special Triangles Right Angled Triangles			Sequences Linear Sequences Quadratic Sequences Quadratic Sequences Geometric Sequences Fibonacci Sequences Sequences Iteration Iteration to solve equations Iterative Methods			Combinations Likelihood of events occurring Tree Diagrams Tree Diagrams with Probabilities that change Venn Diagrams Venn Diagrams and Probabilities			Translations Reflections Rotations Enlargement from a centre Enlargement with negative scale factors Combining Transformations Similar Shapes Congruent Shapes Plans, elevations and 3D drawings	
Assessment	End of unit Fluency check			End of unit Fluency check		End of unit Fluency check			End of unit Fluency check				Consiliium Assessment 1		End of unit Fluency check		End of unit Fluency check				End of unit Fluency check			End of unit Fluency check			Consilium Assessment 2			End of unit Fluency check			End of unit Fluency check			End of unit Fluency check	
Gatsby / SMSC	Used in optimisation processes for logistics (shipping, packaging) and in cryptography (IT security) to encrypt data using prime factorisation.			Rounding and estimation are essential in budgeting, construction projects, and financial modeling to make predictions and prevent overestim		Expanding and simplifying expressions are fundamental in engineering, physics (e.g., motion equations), and business for cost modeling and break-even analysis.			Solving linear equations is crucial for determining costs in finance, calculating speed-distance-time problems in logistics, and physics for understanding relationships between variables.				Used in data visualisation for fields like healthcare (tracking patient outcomes), marketing (consumer trends), and sports analytics (player		Essential in fields like architecture, engineering, and product design, where accurate measurements of surface area and volume are necessary for construction and manufacturing.				Widely used in finance (interest rates, investments), retail (discounts, markups), and healthcare (dosage calculations).				Used in recipe scaling in food industries, map reading and scale modeling in construction, and in pharmaceuticals to mix ingredients accurately.				Critical in fields like construction, navigation (aviation, maritime), and graphic design where understanding angles and geometric properties is essential for planning and designing.				Pythagoras is used in surveying, architecture, and construction for distance calculations. Surds are relevant in computer science and engineering for precise calculations in design.				Used in engineering, physics, and navigation (aircraft, ships), trigonometry helps calculate distances, angles, and heights in surveying and construction.				Sequences are used in biology for modeling growth rates, finance for predicting trends, and environmental sciences for populatio				Used in risk management (insurance), financial forecasting, and healthcare (disease prediction models) to calculate the likelihood of outcomes.				Critical for computer graphics and design, as well as in architecture (plans and elevations), and robotics (movement and rotations).	

		ating costs.			and team performance).							n growth analysis.		

Year 10 (4 lessons p/week) (A) Band

Week Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Topic/Theme	Transformations			Expressions 2				Area and Volume 2					Graphs				Constructions			Review and Assessment		FDP 2			Graphs 2				Equations 2					Review and Assessment		Ratio			
Learning Outcomes	Translations Reflections Rotations Enlargement from a centre Enlargement with negative scale factors Combining Transformations 3D drawings Plans and elevations			Expand single brackets Factorise into single brackets Expand double brackets Factorise into double brackets Factorise difference of two squares Solve quadratic equations				Circumference and area of a circle Arc length and area of sectors Calculate the area and perimeter of compound shapes Volume Surface area Cylinders Volume and surface area of spheres, cones and pyramids Density calculations Metric unit conversions					Draw straight line graphs Straight line graphs without a table of values Finding the equation of a straight line Finding the gradient of a straight line Equation of a straight line Real life graphs				Constructions Loci Drawing Triangles Bearings Contingency Time Tessellation Plans, elevations and 3D drawings				Using Fractions Multiplication and Division of Fractions Addition and Subtraction of Fractions Find a percentage of a number Increase/Decrease an amount by a percentage Reverse Percentage Powers Standard Form Using Standard Form			Plotting quadratic graphs Using Quadratic Graphs Plot any polynomial Other Curve Graphs How do populations grow? Area under a graph Straight Line Graphs Equation of a straight line What is the equation of the line?				Linear equations Equations with Fractions Solving Linear Equations Solving Simultaneous Equations Solving Simultaneous Equations Solving Problems with linear simultaneous Equations Using Algebra in context Changing the Subject of a Formula					Ratio Recipes Map Scales Ratio and Money Bar models Proportion Timetables Speed Density Pressure			
Assessment	End of unit Fluency check			End of unit Fluency check				End of unit Fluency check					Consilium Assessment 1				End of unit Fluency check			End of unit Fluency check		End of unit Fluency check			End of unit Fluency check				End of unit Fluency check					End of unit Fluency check			Consilium Assessment 2			
Gatsby / SMSC	Symmetry and transformations in graphic design, architectural plans, and robotics (rotations, reflections, translations). Enlargements are also used in map scaling and creating models in engineering.			Expanding and factorising expressions are used in construction planning, business cost predictions, and solving scientific equations in fields like chemistry and physics.				Calculating the surface area and volume is crucial in packaging design, construction, and product manufacturing. Density calculations are essential in fields like material science and engineering.					Straight-line graphs and quadratic graphs are used in economics for market trends, in physics for motion equations, and in business for cost-revenue analysis. Real-life graphs are also useful in logistics and resource management.				Constructions and loci are essential in civil engineering and urban planning (road and building layouts). Bearings are used in navigation (aviation, maritime, military).				Financial calculations in banking (interest rates, loans), sales (discounts, profit margins), and in healthcare for dosage calculations in pharmaceuticals.			Plotting and interpreting quadratic graphs are widely used in engineering, environmental science, and economics (to model population growth, financial predictions, etc.).				Solving linear and simultaneous equations is essential in scientific research, engineering designs, and economic forecasting. These skills are also used in complex problem-solving in fields like logistics and operations.					Ratio and proportion calculations are key in recipe scaling in the food industry, map reading in geography, and determining proportions in architecture and graphic design.			

Year 10 (4 lessons p/week) (B) Band

Week Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Topic/Theme	Cumulative Frequency			Transformations			Equations 2				Area and Volume 2					Graphs				Review and Assessment		Constructions		Equations 3					Circle Theorems			Graphs 2		Review and Assessment			Graphs 2			
Learning Outcomes	Sampling Cumulative Frequency Quartiles and Box Plots			Translations Reflections Rotations Enlargement from a centre Enlargement with negative scale factors Combining Transformations 3Ddrawings Plans and elevations			Expanding Brackets Factorising Quadratics How does factorising help me solve an equation? Formula Complete the square Solve quadratics				Similar Lengths Similar Area and volume Volume of non-prisms Surface Area of non-prisms Problem solving with volume and surface area Frustums Problem Solving with surface area and volume					Plotting Straight Line Graphs Find the equation of a linear graph Find the equation of a straight line between two coordinates How do graphs help to solve equations? Parallel and Perpendicular Lines Solving simultaneous equations graphically Speed-Time Graphs Distance-Time Graphs					Construction Loci Tessellation		Solving Linear Equations Solving Simultaneous Equations Solving Problems with linear simultaneous Equations Solving Quadratic Simultaneous Equations Solving Inequations Solving Quadratic Inequations How do I use set notation?					Calculate areas of parts of circles? How do I use circles? What are Circle Theorems? Which angles are special in circles? Alternate segment theorem How do I use Circle Theorems? Solving problems Equation of a tangent Circle Graphs What problems can I solve with circle graphs?						Plotting quadratic graphs Using Quadratic Graphs Plot any polynomial Recognising Graphs Exponential Growth Area Under Graphs Area Under a Graph Gradients Translating Graphs Transforming Graphs How do I graph linear inequalities? How do I plot regions?		
Assessment	End of unit Fluency check			End of unit Fluency check			End of unit Fluency check				Consilium Assessment 1					End of unit Fluency check				End of unit Fluency check		End of unit Fluency check		End of unit Fluency check				End of unit Fluency check							Consilium Assessment 2			
Gatsby / SMSC	Used in data analysis for fields such as market research (to understand customer behavior), healthcare (tracking patient recovery rates), and finance (income distribution analysis).			Critical in computer graphics, animation, architecture, and engineering, where objects and models need to be rotated, reflected, and translated.			Solving equations is key in financial forecasting, engineering design (where systems need to balance forces), and in computing algorithms that control technology systems.				Widely used in construction, interior design (space utilization), and product design, where understanding the volume and surface area is crucial for material efficiency.					Used in business for trend analysis, engineering for plotting performance data, and environmental sciences for tracking changes in weather or ecosystems over time.					Essential in civil engineering, architectural blueprints, and manufacturing, where precise constructions guide the development of complex systems and		Crucial for creating financial models, optimising processes in industries, and solving real-world problems in physics and engineering.					Applied in engineering (for gear designs), architecture, and even in astronomy for understanding orbits and circular motions.						Helps in analysing complex data sets, making predictions in finance, and in physics for tracking the trajectory of objects or growth patterns.			

							structures.					

Year 11 (4 lessons p/week) (A) Band – 2024 - 2025

Week Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Topic/Theme													Mock 1	Review		QLA to provide individual reactive SOWs								Mock 2	QLA to provide individual reactive SOWs														
Learning Outcomes																																							
Assessment																																							
Gatsby / SMSC																																							

Year 11 (4 lessons p/week) (B) Band – 2024 - 2025

Week Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Topic/Theme	Graphs	Circles SA and Volume			Other graphs rates of change			Geometric reasoning and circle theorems			Simultaneous equations and Quadratics		Mock 1	Proportional Reasoning		Vectors		Functions		Measures, units and advanced area and volume		Advanced algebra and Proof		Mock 2	QLA to provide individual reactive SOWs														
Learning Outcomes	Recap all graphs Parallel and perpendicular	Find the perimeters and areas of semicircles and quarter-circles; Calculate perimeters and areas of composite shapes made from circles and parts of circles; Calculate arc lengths, angles and areas of sectors of circles; Find the surface area and volume of a cylinder; Find the surface area and volume of spheres, pyramids, cones and composite solids.			Calculate gradients of graphs. Estimate gradients of curved graphs. Find area under graphs Interpret gradients and area under graphs in different contexts (financial, DT, VT, etc.)			Understand geometric proofs involving angles. Use circle theorems to find missing angles. Use circle theorems in a range of different contexts			Construct and solve linear simultaneous equation Solve simultaneous equations by drawing graphs Understand the different parts of a quadratic graph (intercept, turning point)			Identify and work with fractions in ratio problem Calculate reverse percentages Construct and solve direct and inverse proportion equation Recognise and interpret proportion in graphs		Understand and use vector notation. Solve vector problems Solve vector problems with ratio Solve parallel and same line vector problems		Plot a range of graphs from their functions Identify graph transformations Calculate compound and inverse functions Construct and solve quadratic simultaneous equations		Convert between different common units of measure Convert between compound units Understand and use scale factors		Change the subject (complex) Algebraic fractions Find approximate solutions using iteration																	
Assessment		Each week the last lesson will be a WTM or a Staples challenge			WTM or Staples challenge			WTM or Staples challenge			WTM or Staples challenge			WTM or Staples challenge		WTM or Staples challenge		WTM or Staples challenge		WTM or Staples challenge		WTM or Staples challenge																	
Gatsby / SMSC	Used in business	Important in fields like architecture, engineering, and product design to			Used in economics (growth rates), physics (acceleration), and business			Applied in navigation (maritime, aviation), architecture (circular			Used in business for solving optimisation			Essential in recipe scaling (food industry), financial		Used in physics (forces, velocity), computer graphics		Important in computing (algorithms), engineering (input-		Crucial in construction, manufacturing, and healthcare (dosage		Used in software engineering (coding algorithm																	

	(sales trends	calculate the surface area and volume of complex structures and objects.	(revenue changes over time) to estimate the rate of change and interpret the meaning of gradients.	structures), and engineering for understanding properties of circles and angles.	problems, in science for modeling systems.		calculations (interest rates, loan repayments).	(motion and transformations), and navigation.	output systems), and economics (cost and revenue functions)	calculations) for ensuring precision in measurements and conversions.	s), cryptography (data security),																					

Year 11 (4 lessons p/week) (A) Band - 2025

Week Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Topic/Theme	Vectors			Equations 3			Pythagoras and Trigonometry			Angles and Shapes		Review	Mock 1	Review		QLA to provide individual reactive SOWs								Mock 2	QLA to provide individual reactive SOWs													
Learning Outcomes																																							
Assessment																																							
Gatsby / SMSC																																							

Year 11 (4 lessons p/week) (B) Band - 2025

Week Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Topic/Theme	Further Trogonometry				Functions		Proofs and functions				Vectors		Mock 1	Review	Vectors	QLA to provide individual reactive SOWs								Mock 2	QLA to provide individual reactive SOWs													
Learning Outcomes																																							
Assessment																																							
Gatsby / SMSC																																							