

	Term	Topic	Learning Outcomes	Assessment
		Unit 1:	Labelling and Terminology	Units 1-6
		Shape	 Correctly label shapes, sides, angles, parallel 	assessed in the
		5apc	and perpendicular lines.	Autumn Term
			 Understand and use terms: congruent, similar, 	Assessment
			parallel, perpendicular, vertex, edge, and face.	
			Shape Recognition and Classification	
			 Recognise and distinguish congruent and 	
			similar shapes by sight.	
			 Classify triangles as scalene, isosceles, or 	
			equilateral.	
			o Identify and label equal-length sides, parallel	
			sides, and right angles on shapes.	
			Polygons and Quadrilaterals Name and describe properties of	
			 Name and describe properties of quadrilaterals: square, rectangle, rhombus, 	
			parallelogram, trapezium, kite, arrowhead.	
			 Name polygons up to a decagon. 	
			 Classify polygons as regular or irregular. 	
			• 3D Shapes	
			 Know names and properties of cube, cuboid, 	
			cone, sphere, cylinder, and pyramid.	
	\leftarrow			
_	`_	Unit 2:	Place Value and Decimals	
Year 7	Autumn 1	Arithmetic	 Understand place value in both integers and 	
J	Ш		decimals.	
()	J		 Order decimals accurately. Arithmetic 	
(e	1		 Solve problems involving addition, subtraction, 	
	\ \ -		multiplication and division of integers.	
	1		 Multiply integers and decimals by powers of 	
			10.	
			Lindoustonding and Applying Ningstine Ningshau	
		Unit 3:	 Understanding and Applying Negative Numbers Use negative numbers in real-life and 	
		Negative	mathematical contexts.	
		Numbers	Comparing and Calculating Differences	
			 Find the difference between two numbers, 	
			including when negative values are involved.	
			Zero Pairs	
			 Identify and make zero pairs (pairs of numbers 	
			that sum to zero).	
			Operations with Negative Numbers	
			 Add, subtract, multiply and divide with 	
			negative numbers.	



Term	Topic	Learning Outcomes	Assessment
	Unit 4:	Algebraic Conventions	
	Expressions	 Use correct conventions for expressing the 	
		four operations (addition, subtraction,	
		multiplication, division) in algebraic form.	
		Representing Expressions	
		 Represent expressions with unknowns using: 	
		■ Pictures	
		■ Bar models	
		■ Function machines	
		Algebraic notation	
		Substitution Substitute values into nictures, har models	
		 Substitute values into pictures, bar models, function machines, and algebraic expressions. 	
		runction machines, and digeorate expressions.	
	Unit 5:	Types and Estimation of Angles	
	Angle	 Identify acute, right, obtuse, and reflex angles. 	
	Aligie	 Estimate the size of angles. 	
		Constructing Triangles	
		 Construct triangles given two sides and the 	
		included angle (SAS).	
7		Construct triangles given two angles and the	
_		included side (ASA).	
=		Angle Facts and Properties	
Autumn 2		 Know that angles on a straight line add up to 	
ጋ		180°.	
Ħ		 Know that angles in a full turn add up to 360°. Recognise that vertically opposite angles are 	
7		equal.	
		 Know that angles in a triangle add up to 180°. 	
		 Understand the angle properties of isosceles 	
		and equilateral triangles.	
		Angles in Parallel Lines	
		 Investigate angles formed by parallel lines. 	
		 Recognise that corresponding angles are equal. 	
		Bearings	
		 Understand that bearings relate to compass 	
		points and are measured in a clockwise	
		direction.	
	Unit 6:	Arithmetic with Decimals	
	Decimals	Add, subtract, multiply and divide with	
		decimals accurately.	
		Order of Operations	
		 Apply the correct priority of operations 	
		(BIDMAS/BODMAS) when working with	
		integers and decimals.	

Autumn Term Assessment



Ur	nit 7:	Types of Sequences	Units 1-14
Se	quences	 Identify and find term-to-term rules for: 	assessed in the
		 Linear sequences 	Spring Term
		 Simple geometric sequences 	Assessment
		■ Fibonacci-type sequences	
	•	Working with Sequences	
		 Continue linear, simple geometric, and Fibonacci-type sequences, including those with 	
		negative terms.	
		 Find missing terms in linear sequences. 	
		 Find this sing terms in linear sequences. 	
		 Use the nth term to generate terms in a 	
		sequence.	
		 Find and use rules for sequences derived from 	
		diagrams.	
	•	Function Machines	
		 Find outputs from one- and two-step function 	
		machines.	
		 Find missing functions in one- and two-step 	
		function machines.	
11.	nit 8:	Understanding and Converting Fugations	
		Understanding and Converting FractionsExpress an amount as a fraction.	
Fre	actions	 Convert between mixed numbers and 	
		improper fractions.	
		Equivalence and Simplification	
)		Find equivalent fractions.	
		 Simplify fractions. 	
	•	Ordering and Comparing Fractions	
0		 Order fractions by size. 	
)	•	Operations with Fractions	
		 Add and subtract proper fractions, including 	
		those with mixed numbers.	
		 Multiply a proper fraction by an integer. 	
		 Multiply a proper fraction by another proper 	
		fraction.	
		 Divide a proper fraction by an integer. 	
		 Divide a proper fraction by another proper 	
		fraction.	
Ur	nit 9:	Conversions	
M	easures	 Convert between different metric units of 	
		length and time	
		 Solve real-life and mathematical problems 	
		involving length and time	
	•	Money	
		 Solve problems involving money, such as 	
		calculating totals, change, and making	
		comparisons.	



Torm	Tonio	Loorning Outcomes	Assassmant
Term	Topic	Learning Outcomes	Assessment
	Unit 10:	 Visualising and Representing 3D Shapes Match 2D views (plans, elevations) to real-life 	
	3D	 Match 2D views (plans, elevations) to real-life 3D situations. 	
		 Draw plans and elevations of 3D shapes. 	
		Drawing 3D Shapes	
		 Draw cubes and cuboids on isometric paper for 	
		accurate representation.	
		Understanding Volume	
		 Understand that cube units are used to 	
		measure volume.	
		 Calculate the volume of cubes and cuboids. 	



Term	Topic	Learning Outcomes	Assessment
	Unit 11:	Inverse Operations and Function Machines	
	Equations	 Find inverse function machines (determine 	
		operations that reverse the effect of the	
		original function).	
		Use inverses to find the input of function machines given the output	
		machines, given the output. O Use inverses to solve equations.	
		Using Algebra Tiles	
		 Use algebra tiles to form algebraic expressions, 	
		including cancelling zero pairs	
		 Use algebra tiles to represent and form 	
		equations.	
		 Use algebra tiles to solve equations, including 	
		those with negative solutions.	
		Solving Equations	
		 Use the balancing method to solve equations. 	
	Unit 12:	Rounding Whole Numbers and Decimals	
	Approximations	o Round to the nearest 10,100,1000, integer and	
		a specified number of decimal places.	
Spring 2	Unit 13:	Finding and Using Rules for Lines	
pn pn		 Plot and read coordinates in all 4 quadrants of 	
2.	Graphs	the coordinate grid.	
		 Find rules (equations) for straight lines by 	
		inspecting patterns in coordinates.	
0)		 Use function machines to help find more 	
		complex rules for straight lines from given	
		coordinates.	
		 Graphing Plot graphs of straight lines by generating 	
		coordinates that satisfy the rule/equation.	
		 Interpret and sketch graphs to model simple 	
		real-life situations (e.g., distance-time graphs).	
	Unit 14:		
	FDP	 Converting Decimals, Fractions & Percentages Use place value to convert decimals and 	
		 Use place value to convert decimals and fractions (e.g., 0.7 = 7/10). 	
		 Use division to convert fractions to decimals 	
		(e.g., $3/8 = 3 \div 8 = 0.375$).	
		 Convert fractions out of 100 directly to 	
		percentages (e.g., 47/100 = 47%).	
		Convert between decimals and percentages	
		(e.g., 0.65 = 65%).	
		 Convert between common fractions, decimals, and percentages for halves, thirds, quarters, 	
		and percentages for halves, thirds, quarters, and tenths (e.g., $1/2 = 0.5 = 50\%$).	
		and tentilo (e.g., 1, 2 0.3 - 50/0).	

Spring Term Assessment



Term	Topic	Learning Outcomes	Assessment
	Unit 15:	Common Shapes	Units 1-22
	Area &	 Calculate the perimeter and area of rectangles, 	assessed in the
	Perimeter	triangles and parallelograms	Y7 Core Exam
		Compound Shapes	
		 Find the area and perimeter of shapes made 	
		from combinations of rectangles, triangles, and	
		parallelograms.	
		• Circles	
		Ounderstand that pi (π) is the ratio between the	
		diameter and circumference of a circle.	
		Obscover and use the formula for the circumference of a circle ($C = \pi \times \text{diameter}$).	
		 Calculate the circumference of a circle. 	
	Unit 16:	Expressing and Simplifying Ratios	
	Ratio	 Express two or more quantities as a ratio. 	
		 Find equivalent ratios (e.g., 2:3 is equivalent to 	
		4:6) and simplify ratios to their simplest form.	
		 Sharing and Solving Problems Share an amount in a given ratio (e.g. share 	
		 Share an amount in a given ratio (e.g. share £60 in the ratio 2:3). 	
		 Solve problems involving direct proportion 	
		(e.g. if 5 apples cost £2, how much do 8 apples	
\leftarrow		cost?).	
Summer 1			
	Unit 17:	Probability Scale	
		 Use words to describe probability (e.g., certain, 	
	Probability	likely, unlikely, impossible).	
\supset		 Understand that the probability scale runs 	
S		from 0 (impossible) to 1 (certain).	
		Mark events on the probability scale based on	
		how likely they are to happen. • Listing Outcomes	
		 List all possible outcomes for single events 	
		(e.g., heads or tails for a coin toss).	
		Calculating Probability	
		 Use equally likely outcomes to find the 	
		probability of single events.	
		 Express probabilities as fractions, decimals, and percentages. 	
		Venn Diagrams	
		 Populate Venn diagrams with given 	
		information.	
		 Find and interpret probabilities of events 	
		described in words using Venn diagrams	



Term	Topic	Learning Outcomes	Assessment
	Unit 18:	Calculating with Powers and Roots	
	Whole Number	 Know the properties of square numbers, cube numbers, and triangular numbers. Find the first 10 square numbers and triangular numbers, and the first 6 cube numbers. Calculate squares, cubes, and their roots. Multiples and Factors Find the lowest common multiple (LCM) of two numbers. Find the highest common factor (HCF) of two numbers. Prime Numbers Recognise prime numbers. Express a number as a product of its prime factors (using factor trees or other methods). 	
	Unit 19:	Fractions of Amounts	
	Fractions &	Calculate fractions of given amounts	
	Percentages	Percentages Without a Calculator Calculate percentages of amounts with and without a calculator	
	Unit 20:	o Symmetry	
	Transformations	Identify reflectional and rotational symmetry	
	Transformations	in 2D shapes. O Reflection	
		Reflect shapes in horizontal, vertical and	
		diagonal mirror lines	
		Reflect shapes on a coordinate grid, including	
7		across lines given by simple equations e.g. x=2, y=1).	
ي		o Rotation	
<u>j</u>		Rotate shapes around a point on a co-ordinate	
<u></u>		grid. O Translation	
3		Translate (move) shapes to new positions	
Summe		using column vectors.	
<i>U</i>)			
	Unit 21:	Forming and Substituting	
	Expressions 2	 Form algebraic expressions including squares, 	
		cubes and roots. O Substitute positive and negative values into	
		expressions.	
		Simplifying Expressions	
		 Use algebra tiles to make zero pairs to simplify expressions. 	
		 Simplify expressions by collecting like terms. 	
		Expanding and Solving	
		Expand single bracketsSolve equations by balancing, including those	
		with letters on both sides.	



Term	Topic	Learning Outcomes	Assessment	
	Unit 22:	Averages and Range		
	Statistics	 Calculate the mean from a list of numbers, 		
		rounding where necessary.		
		 Use the mean to compare two sets of data. 		
		 Calculate the median, mode, and range from a 		
		list of numbers.		
		Data Collection and Presentation		
		 Draw and interpret: tally charts and frequency 		
		tables; pictograms; bar charts and fractional		
		pie charts.		
		Y7 Core Exam		
17 COIC LAGIII				



r 8	nn 1	Unit 1: Negative Number Unit 2: Transformations Unit 3: Indices	 Operations with Negative Numbers Apply rules of BODMAS to add, subtract, multiply and divide with negative decimal numbers Create and Complete Symmetrical Patterns Make or finish patterns that are symmetrical. Reflect, Rotate & Translate on a Co-ordinate Grid Reflect shapes across lines given by simple equations e.g. x=2, y=1. Describe how a shape has been reflected. Rotate shapes around a point by a given angle. Describe how a shape has been rotated. Translate shapes to new positions using a vector. Describe how a shape has been translated using a column vector. Enlargement Enlarge a shape using a positive integer or fractional scale factor Describe how a shape has been enlarged or reduced using scale factors. Evaluate Indices Work out the value of numbers with any 	Units 1-8 assessed in the Autumn Term Assessment. Content from Y7 can also be assessed.
Year 8	Autumn 1	Unit 4: Equations 1	powers. Write numbers and calculations using powers. Simplify Using the Rules for Indices Use the multiplication and division rules to simplify powers. Balance Equations with Unknowns on Both Sides Solve equations where the unknown appears on both sides, including when the unknowns are positive and/or negative.	



	=	
	Unit 5: Fractions	Add, Subtract, Multiply & Divide with Complex Fractions
		 Perform the four operations with mixed
		numbers and negative values. O Use cross simplification to multiply fractions
		Use cross simplification to multiply fractions
		Fraction Calculations
		Find fractions of proper and improper
		amounts. O Determine non-integer answers when
		calculating with fractions.
		Increase and decrease quantities by a
		fractional amount.
	Unit 6:	Data Collection and Presentation
	Statistics 1	 Complete and interpret two-way tables and frequency trees.
		Draw and interpret pie charts for any
		frequency.
		 Plot scatter diagrams. Identify the correlation in scatter diagrams
		and interpret this as a relationship between
\sim		variables.
, , , , , , , , , , , , , , , , , , ,		 Draw lines of best fit and use them to make predictions.
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Autumn 2		A viah va aki a vviah Da simala
트	Unit 7:	 Arithmetic with Decimals Understand the impact of multiplying and
7	Decimals	dividing by 0.1 and 0.01 and use this to
		complete calculations.
		 Combined Operations Add, subtract, multiply, and divide positive
		and negative decimal values using the order
		of operations.
	Unit 8:	Algebraic Manipulation
	Expressions 1	 Substitute positive and negative numbers into expressions, including those containing
		squares and roots.
		Simplify expressions by collecting like terms.
		 Expand single brackets by applying indices rules.
		 Expand and simplify expressions involving
		brackets.
		 Factorise expressions into a single bracket by taking out a common factor.

Autumn Term Assessment



	Unit 9:	• Conversions	Units 1-16 assessed
	Measures	 Convert between different metric units of mass and capacity. Solve real-life and mathematical problems 	in the Spring Term Assessment.
		involving mass and capacity. Convert between miles and km.	Content from Y7 can also be assessed.
Spring 1	Unit 10: Probability	 Calculating Probability Calculate the probability of single events. P(not A) Calculate the number of expected outcomes for single events. Calculating Relative Frequency Use experiments to find relative frequency. Use relative frequency to calculate the number of expected outcomes. Combined Events Use systematic listing to find the outcomes of two or more events and use these to calculate probability. Use sample space diagrams to find the outcomes of two events and use these to calculate probability. Calculate the number of expected outcomes for combined events. Diagrams Use frequency trees, two-way tables and venn diagrams to calculate probability. 	
Sp	Unit 11: Approximations	 Rounding Round to a specified number of decimal places and significant figures. Estimation Estimate calculations by rounding to one significant figure. 	
	Unit 12: Sequences	 Term to Term Rules Describe the term-to-term rule for sequences – linear, geometric and Fibonacci types. nth Term Rules Find the nth term of a linear sequence. Use the nth term to find a particular term in a linear sequence. Find and justify the linear nth term from a diagrammatic situation. 	



	Unit 13:	•	Expressing and Simplifying Ratios	
	Ratio		 Understand and use multiplicative 	
			relationships.	
			 Solve problems involving equivalent ratios 	
			and sharing in a ratio.	
		•	Proportion	
			 Recognise and apply direct proportion. 	
			 Understand that the graph that represents 	
			direct proportion is linear and crosses	
			through the origin.	
	Unit 14:			
		•	Common Shapes	
	Area &		Calculate the area of a trapezium.	
	Perimeter		 Find missing lengths in rectangles, triangles, 	
			parallelograms and trapeziums when given the area.	
			 Solve problems involving the area of 	
			rectangles, triangles, parallelograms and	
			trapeziums.	
		•	Circles	
			 Calculate the circumference and area of a 	
			circle.	
			 Calculate the perimeter and area of semi- 	
\sim			circles.	
, ,		•	Compound Shapes	
ല			 Find the area and perimeter of shapes made 	
:			from combinations of rectangles, triangles,	
			parallelograms, trapeziums and circles.	
Spring 2				
	IInit 15.	•	Finding and Using Rules for Lines	
	Unit 15:		 Recognise and draw graphs such as y = 3, 	
	Graphs		x =2	
			 Plot linear graphs by completing a table of 	
			values	
			 Use function machines and graphs to 	
			represent number patterns	
		•	Graphing	
			 Plot graphs of straight lines by generating 	
			coordinates that satisfy the rule/equation.	
			o Interpret and sketch graphs to model simple	
			real-life situations (e.g., distance-time	
			graphs).	
	Unit 10	•	Balance Equations with Brackets on Both Sides	
	Unit 16:		 Solve equations where the unknown appears 	
	Equations 2		on both sides with brackets, including when	
			the unknowns are positive and/or negative.	

Spring Term Assessment



	11.11.47			11:4-4-24
	Unit 17:	•	Multiples, Factors and Primes	Units 1-24 assessed in the Y8 Core
	Whole Number		 Solve problems using the lowest common multiple (LCM) and highest common factor 	Exam.
			(HCF).	Exami
			 Express a number as a product of its prime 	Content from Y7
			factors in index notation.	can also be
		•	Inequalities	assessed.
			 Describe and identify inequalities on a 	
			number line.	
	Unit 18:	•	Circles	
	Area & Volume		 Find the circumference of circles and parts of 	
			circles (1/2, ¼, ¾)	
			 Find the area of a circle and parts of circles 	
			(1/2 , ¼, ¾)	
		•	Compound Shapes	
			 Find the area and perimeter of shapes made from combinations of rectangles, triangles, 	
			parallelograms, trapeziums and circles.	
			Surface Area & Volume	
			 Find the surface area of prisms. 	
			 Calculate the volume of a prism, including 	
			cylinders.	
7				
` '				
G				
Summer 1	Unit 19:	•	Algebraic Manipulation	
	Expressions 2		 Expand and simplify single brackets using 	
			indices rules	
h			 Factorise expressions by taking out a 	
S			common factor using indices rules	
			 Derive fact families from a given equation/formula/calculation 	
			Write inverse expressions	
			 Expand and simplify double brackets 	
			2paa aa sp, acas c stasticis	
	Unit 20:	•	Equivalent Fractions, Decimals & Percentages	
	FDP		 Use equivalent FDP to express values as a 	
			proportion.	



	Unit 21:	A Shana Bacagnitian and Classification
		 Shape Recognition and Classification Recall the side, angle and diagonal properties
	Shape & Angle	 Recall the side, angle and diagonal properties of common 2D shapes, including polygons
		and whether they are regular or irregular
		Angle Rules Recall and use the facts connected to right.
		Recall and use the facts connected to right-
		angles, straight lines, full turns, vertically
		opposite angles, the angle sum of triangles and the angle sum of quadrilaterals.
		Recognise alternate angles and serresponding angles in parallel lines and
		corresponding angles in parallel lines and know that they are equal.
		 Solve missing angle problems involving parallel lines.
		paraller liftes.
	Unit 22:	Percentages of an Amount
	Percentages	Calculate a percentage of an amount
		including over 100% using efficient methods
		with and without a calculator.
		 Increase and decrease by a percentage using
		efficient methods with and without a
		calculator.
7		
Summer 2	Unit 23:	Averages and Range
a	Statistics 2	 Use averages and the range to compare data
Č	Statistics 2	sets.
		 Discuss the advantages/disadvantages of the
		averages and range.
5		 Calculate averages from a stem and leaf
S		diagram.
		 Calculate averages and range from a
		frequency table.
		 Calculate averages and range from a grouped
		frequency table.
		Data Collection and Presentation
		 Know the difference between discrete and
		continuous data.
		Construct and interpret stem and leaf diagrams.
		 Draw frequency polygons and histograms for
		equal sized groups.
	Unit 24:	
	Graphs 2	Gradient & y-intercept
	Grapiis 2	 State the value of the gradient and y-
		intercept given an equation of a straight line
		in the form y=mx + c
		Draw a line segment with a given gradient
		 State the equation of a straight-line graph on
		a grid
		Quadratic Graphs
		Draw simple quadratic graphs by completing table of values.
		a table of values

Y8 Core Exam



		Unit 1:	Estimation & Bounds Units 1	1-7 assessed
		Number	 Estimate calculations by rounding to one significant figure. State upper and lower bounds. Write error intervals using inequality 	Autumn Assessment. nt from Y7 & also be
Year 9	Autumn 1	Unit 2: Constructions	Scale Drawings & Bearings Use a scale to interpret a diagram or map. Measure and draw journeys using bearings and a scale. Use bearings to fix a position. Constructions Construct triangles that are SAS, ASA or SSS. Bisect a line. Bisect an angle. Construct a perpendicular from a point to a line. Construct a perpendicular from a point on a line. Use loci and constructions to solve problems. Congruency Recall and use the conditions for congruent triangles.	
		Unit 3: Graphs	 Substitution Substitute into formulae and expressions. Substitute into function notation. Drawing Graphs and Solving with Graphs Draw linear graphs by completing a table of values. Use linear graphs to solve linear equations Draw quadratic graphs by completing a table of values. Use quadratic graphs to solve simple quadratic equations. y = mx + c Write the equation of a straight line from a drawn line/graph. State the gradient from a given equation in the form y=mx+ c. 	



	Unit 4:	Ratio	
	Ratio	 Solve problems using equivalent ratios including representing ratios in the form n:1 and sharing in a ratio. Proportion Solve problems involving direct and inverse proportion. Recognise and sketch graphs of direct and inverse proportion. Compare offers to find the best buy. Calculate a speed, distance and time. Calculate a density, mass and volume. Calculate a density, mass and volume. Solve problems using equivalent ratios In the form n:1 In the form n:1	
	Unit 5: Real Life Graphs	 Distance-Time Graphs Interpret distance-time graphs. Know that the gradient of a distance-time graph is the speed. Calculate the gradient and therefore the speed from a distance-time graph. Gradient of Real-Life Linear Graphs State and interpret the gradient and y-intercept of linear real-life graphs. Give the units of the gradient as a compound unit. Non-Linear Real-Life Graphs Read values from real life graphs, including those that are linear and those in the form y = a^x and y = ¹/_x 	
Autumn 2	Unit 6: Number Properties	 Indices Rules Find the value of numbers written in index notation, including x⁰ and x⁻¹ Know and use a^m x aⁿ = a^{m+n} Know and use a^m ÷ aⁿ = a^{m-n} Know and use (a^m)ⁿ = a^{mn} Standard Form Convert numbers between standard form and normal form. 	
	Unit 7: Expressions	Algebraic Manipulation Expand and simplify single brackets with complex terms using indices rules. Factorise expressions by taking out a common factor of complex terms using indices rules. Expand and simplify double brackets with coefficients of unknowns greater than 1 Factorise quadratics into double brackets.	

Autumn Term Assessment



	Unit 8:	■ Equivalent Fractions, Decimals and Percentages	Units 1-14 assessed
	FDP	 Express a proportion as a fraction, decimal or % Express a proportional change as a fraction, decimal or % 	in the Y9 Core Exam.
			Y8 can also be assessed.
\vdash	Unit 9: Shape	 Drawing with 3D Shapes Recall the names and properties of 2D and 3D shapes including their symmetries. Draw 3D shapes on isometric paper. Draw accurate nets of 3D shapes. 	
Spring 1	Unit 10: Equations & Inequalities	 Solving Equations Form and solve linear equations. Solving Inequalities 	
Sp	mequances	 Solve linear inequalities, including 'double' inequalities. Show the solutions to linear inequalities on a number line. 	
		 Re-arranging Re-arranging equations and formulae by balancing. 	
	Unit 11: Area & Perimeter	 Sectors Calculate the arc length of sectors. Calculate the perimeter of sectors. Calculate the area of sectors. 	
	Unit 12: Pythagoras	 Discover and Apply Pythagoras' theorem Calculate the missing hypotenuse or shorter side in right-angled triangles. Solve problems involving right-angled triangles. 	
Spring 2	Unit 13: Angle	 Angle Rules Solve missing angle problems involving parallel lines and apply facts connected to right-angles, straight lines, full turns, vertically opposite angles, the angle sum of triangles and the angle sum of quadrilaterals. Angles in Polygons Calculate missing exterior and interior angles in irregular polygons. 	
	Unit 14: Percentages	 Calculate Percentages with/out a Calculator Calculate simple interest. Use multipliers to increase/decrease by a percentage. Solve problems involving reverse percentages. 	

Y9 Core Exam



	Unit 15: Sequences	 Types of Sequences Recognise and continue linear, quadratic and geometric sequences. Linear Sequences Generate sequences from the nth term rule of a linear. Find the nth term rule of a linear sequence. Find the nth term rule from a diagram. 	Units 1-24 assessed in the Summer Term Assessment. Content from Y7 & Y8 can also be assessed.
Summer 1	Unit 16: Probability	Combined Events Calculate the probability of combined events using systematic listing, sample space diagrams, frequency trees and two-way tables. Calculating expected outcomes for a combined event. Relative Frequency Conduct an experiment to find the relative frequency of an event. Compare the relative frequency and theoretical probability of an event. Venn Diagrams and Set Notation Understand and use set notation to describe the universal set and subsets. Understand and use set notation for the union, intersection and complement. Calculate probabilities from a venn diagram using set notation.	
	Unit 17: Transformations	 Transformations on a Co-ordinate Grid Reflect, rotate, translate and enlarge shapes on a co-ordinate grid. Describe single transformations in detail. Draw a shape after a combined transformation then describe it as a single transformation. 	
	Unit 18: Equations & Graphs	Simultaneous Equations Plot graphs to solve linear simultaneous equations graphically. Solve simultaneous equations with positive terms algebraically by finding the difference between the equations.	



	Unit 19:	Averages and Range	
	Statistics	 Compare date sets by calculating the 	
		averages and range from a list, frequency	
		table and grouped frequency table.	
		Data Collection and Presentation	
		 Data Collection and Presentation Draw and interpret pie charts for any 	
		frequency.	
		 Interpret relationships in scatter diagrams by 	
		drawing lines of best fit and use them to	
		make predictions.	
		 Comment on issues with extrapolation in scatter diagrams. 	
		 Complete a grouped frequency table from a 	
		histogram with equal class widths.	
	Unit 20:	Surface Area & Volume	
	Area & Volume	Find the surface area of composite solids	
		made of prisms.	
7		Calculate the volume of composite solids	
<u>_</u>		made of prisms, including cylinders.	
Summer 2			
<u> </u>			
S			
	Unit 21:	. Trimon om stris Dotino	
	Trigonometry	 Trigonometric Ratios Discover the trigonometric ratios: 	
		SOH CAH TOA	
		 Use the trigonometry ratios to calculate a 	
		missing side and angle	

Summer Term Assessment