Year 7

	Autumn 1			Autumn 2		Spring 1			Spring 2		Summer 1		Summer 2
Unit	Negative Numbers	Number Properties	Algebraic Expressions and Sequences	Order of Operations and Integer Arithmetic	Equations	Powers of Ten and Decimal Arithmetic	Fraction Operations	Averages	Fractions, Decimals and Percentages	Units of Measure	Area and Perimeter	Angles	Probability
Objectives	By the end of this unit pupils will be able to: - Order negative numbers - Use the four operations with negatives - Use negative numbers in real life contexts	By the end of this unit pupils will be able to: - Find factors and multiples - Identify prime numbers, square numbers and cube numbers - Find square roots and cube roots	By the end of this unit pupils will be able to: - Collect like terms - Simplify algebraic expressions - Expand a single bracket - Factorise into a single bracket - Substitute into algebraic expressions and formulae - Describe and continue sequences	By the end of this unit pupils will be able to: - Use the order of operations - Use the four operations with integers	By the end of this unit pupils will be able to: - Use function machines with numbers and algebraic terms - Identify expressions, equations, inequalities, terms and variables - Form and solve equations	By the end of this unit pupils will be able to: - Multiply by powers of ten - Use the four operations with decimals	By the end of this unit pupils will be able to: - Find equivalent fractions - Simplify fractions - Convert between mixed numbers and improper fractions - Use the four operations with fractions and mixed numbers	By the end of this unit pupils will be able to: - Find the mode, median, mean and range from a set of data - Compare data using averages	By the end of this unit pupils will be able to: - Convert between fractions, decimals and percentages - Order fractions, decimals and percentages - Find a percentage of an amount with and without a calculator - Find a percentage increase and decrease with and without a calculator	By the end of this unit pupils will be able to: - Convert between units of length - Convert between units of mass and volume - Convert measures of time	By the end of this unit pupils will be able to: - Find the perimeter of 2D shapes - Find the area of rectangles, triangles, parallelograms and trapezia - Find the area of compound shapes	By the end of this unit pupils will be able to: - Identify types of angles - Know and use basic angle facts - Calculate angles in a triangle and quadrilateral	By the end of this unit pupils will be able to: - Use the probability scale - Find the probability of events happening and not happening - Calculate relative frequency - Use sample space diagrams and calculate probabilities
Catholic Social Teaching	Care for God's Creation Dignity of work and participation Solidarity			Dignity of Work and Participation The Common Good		The Common Good Care for God's Creation Dignity of Work and Participation		Solidarity The Option for the Poor and Vulnerable Care for God's Creation			Care for God's Creation		The Common Good Dignity of Work and Participation Solidarity
SEN Adaptations	Use of number lines and clear visual cues Provide tactile resources e.g. double sided counters Scaffolded tasks Structured examples Relatable contexts e.g. temperature, bank balances Signposts with stuck strategies, key vocab and examples	Use multiplication grids Use visual representations e.g. arrays and factor trees Signposts with stuck strategies, key vocab and examples	Use of manipulatives Pictorial representations e.g area models, grids scaffolded tasks Structured examples Pictorial sequences Signposts with stuck strategies, key vocab and examples	Colour coded steps for BIDMAS/BODMAS Structured examples Pictorial representations Scaffolded tasks Signposts with stuck strategies, key vocab and examples	Visual representations e.g. draw function machines, scales to solve equations Scaffolded tasks Clear structured examples Concrete representations e.g. algebra tiles Signposts with stuck strategies, key vocab and examples	Use of place value charts to visualise multiplying by powers of ten Structured examples Scaffolded tasks Signposts with stuck strategies, key vocab and examples	Use visual representations e.g. bar models Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Use visual representations e.g. towers Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Use visual representations e.g. bar models, number lines, Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Use visual representations Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Provide pupils with key conversions	Use visual representations e.g. Physical shapes or cut outs, counting squares for area Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Provide pupils with key conversions Split up compound shapes into more familiar shapes - colour/label the different sections	Use visual representations Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Provide pupils with key angle facts	Use relatable examples e.g. flipping a coin, rolling a dice Use visual representations Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples
EAL Adaptations	Key words and definitions relevant to the lesson Visual representations Sentence frames Structured examples Consistent language Link language to symbols where possible	Use visual representations e.g. arrays and factor trees Key words and definitions relevant to the lesson Sentence frames Structured examples Consistent language Link language to symbols where possible	Pictorial representations Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations e.g. containers and items with measurements from real life	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations Split up compound shapes into more familiar shapes - colour/label the different sections	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations Provide pupils with key angle facts	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations
Challenge	Inclusion of decimals and fractions Compare negatives in algebraic contexts	Explore HCF and LCM Patterns in multiples Applications to algebra	Negative and fractional terms Polynomials beyond linear Expand expressions with multiple terms Substitute negatives and fractions	Combine with substitution	Solving equations with negative and fractional coefficients Solve equations with unknowns on both sides	Link to scientific notation Link to percentages, ratio and other topics	Combine adding decimals and percentages to fractions Use in real life contexts	Larger data sets inc decimals Evaluate what average is appropriate in a given context Find missing values when given an average	Use unusual percentages Recurring decimals Use with real life context e.g. interest, tax, growth & decay	Convert units of area and volume Time with fractions and decimals Use of conversions before using in a formula	Find the perimeter of irregular shapes and compound shapes Use area/perimeter in problem solving e.g walls, fences Algebraic area/perimeter	Algebraic angles Apply to real life applications Multi-step problems Angles in polygons with more sides	Include probabilities with unusual fractions/decimals/percentages

Year 8

	Autumn 1			Autumn 2		Spring 1		Spring 2			Summer 1		Summer 2		
Unit	Rounding and Estimation	Index Laws	Circles	Volume	Ratio	HCF and LCM	Angles in Parallel Lines	Probability and Tree Diagrams	Solving Equations	Pythagoras	Nth Term	Angles and Pie Charts	Proportion	Percentage Change	Statistical Diagrams
Objectives	By the end of this unit pupils will be able to: - Round to powers of 10 - Round to a given number of decimal places - Round to significant figures - Estimate solutions to calculations	By the end of this unit pupils will be able to: - Use the the multiplication and division laws of indices - Use the power of a power index law	By the end of this unit pupils will be able to: - Know the names of different parts of a circle - Find the circumference of a circle - Find the area of a circle	By the end of this unit pupils will be able to: - Know the properties of 3D shapes - Find the volume of cubes and cuboids - Calculate the volume of prisms - Calculate the volume of a cylinder	By the end of this unit pupils will be able to: - Simplify ratios - Write a ratio in the form 1:n or n:1 - Compare ratios and fractions - Share an amount in a given ratio - Combine ratios	By the end of this unit pupils will be able to: - Express a number as a product of its prime factors - Find the HCF and LCM of 2 or more numbers	By the end of this unit pupils will be able to: - Identify parallel and perpendicular lines - Use alternate, corresponding and co-interior angles to find missing angles	By the end of this unit pupils will be able to: - Use tree diagrams to calculate probabilities of independent events - Use tree diagrams to calculate probabilities of conditional events	By the end of this unit pupils will be able to: - Solve equations up to 3 steps, - Solve equations with unknowns on both sides - Form equations and solve them	By the end of this unit pupils will be able to: - Find the Hypotenuse of a right angled triangle given the length of two shorter sides - Find the smaller sides of a right angled triangle given two other sides	By the end of this unit pupils will be able to: - Find the nth term of a sequence - Generate a sequence given the nth term	By the end of this unit pupils will be able to: - Measure and draw angles - Draw and interpret pie charts	By the end of this unit pupils will be able to: - Solve direct and inverse proportion problems - Find the best value item - Scale recipes up and down - Calculate currency conversions	By the end of this unit pupils will be able to: - Calculate percentage changes without a calculator - Calculate percentage change with a calculator	By the end of this unit pupils will be able to: - Draw and interpret single, composite and comparative bar charts - Draw and interpret pictograms - Draw and interpret scatter graphs
Catholic Social Teaching	Option for the Poor and Vulnerable Dignity of Work and Participation Solidarity			Option for the Poor and Vulnerable		The Common Good Care for God's Creation Solidarity		Option for the Poor and Vulnerable Care for God's Creation Dignity of Work and Participation			Care for God's Creation Solidarity		Solidarity		
SEN Adaptations	Use of visual representations e.g. number lines, place value grids Scaffolded tasks Structured examples e.g. underline the digit being rounded, circle the next digit Relatable contexts e.g. temperature, bank balances Signposts with stuck strategies, key vocab and examples	Signposts with stuck strategies, key vocab and examples Structured examples e.g. colour code base and powers.	Provide a labelled diagram of parts of a circle to aid with identifying Use pi/circumference Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Structured examples Pictorial/concrete representations - 3D models/ nets, use unit cubes to build shapes Scaffolded tasks Clear structured examples Signposts with stuck strategies, key vocab and examples	Visual representations e.g. bar models Scaffolded tasks Clear structured examples Signposts with stuck strategies, key vocab and examples	Provide prime number lists Structured examples Scaffolded tasks Signposts with stuck strategies, key vocab and examples	Use visual representations e.g. colour coding/highlighting parallel lines Real life examples of parallel lines e.g. train tracks Structured examples Signposts with stuck strategies, key vocab and examples Sentence frames for angle reasoning Identify angle type first before calculating missing angles	Use real life relatable examples e.g. coins/dice Physical representations e.g. coloured balls colour coded branches Structured examples Signposts with stuck strategies, key vocab and examples	Visual representations e.g. draw function machines, scales to solve equations Scaffolded tasks Clear structured examples Concrete representations e.g. algebra tiles Signposts with stuck strategies, key vocab and examples	Visual representations e.g. drawing the right angled triangle and finding the areas of the squares from each side. Colour code the sides e.g. red for small sides, blue for longer Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Use number lines/diagrams Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Use tables for step-by-step calculations	Use a visualiser to live model with equipment Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Provide pupils with key conversions Split up compound shapes into more familiar shapes - colour/label the different sections Extra time with tasks due to the need for good motor skills	Use visual representations e.g. bar models Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Use real life examples e.g. real supermarkets prices for best buys Use tables to compare quantities	Use visual representations Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Use visualiser to show use of a calculator	Use reliatedable examples e.g. real-life meaningful and reliatedate data Use visual representations Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Clear and simple symbols for pictograms
EAL Adaptations	Key words and definitions relevant to the lesson Sentence frames Structured examples Consistent language Link language to symbols where possible	Use visual representations Key words and definitions relevant to the lesson Sentence frames Structured examples Consistent language Link language to symbols where possible	Pictorial representations Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Pictoral models e.g. bar models	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Sentence frames for angle reasoning Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations e.g. counters, diagrams	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations Use visualiser to live model with equipment	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations Provide pupils with key angle facts	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations
Challenge	Inclusion of decimals and negatives Compare negatives in algebraic contexts Include standard form Error intervals	Negative indices Fractional indices Use algebraic expressions with coefficients Multi-step problems that combine the different laws	Application to real life contexts and converting lengths Find the radius/diameter when given the area/circumference Link to algebra	Apply to real life objects such as packaging, water tanks, beams Algebraic lengths Application to real-life contexts Find missing dimensions	Multi-step problems Algebraic contexts Combining ratios and simultaneous equations	Numbers in standard form Finding square numbers from prime factors Worded problems Algebraic expressions	Multi-step reasoning including use of angles in triangles/quadilaterals. Algebraic angles	Unequal probabilities e.g. biased dice Algebraic probabilities	Negative coefficients Link to area and perimeter Include fractions	32 contexts e.g. cubes/cuboids Worded problems	Sequences with negative, decimal and fractional terms Non-linear sequences	Link angles to bearings Use percentages and fractions with pie charts Comparative pie charts	Multi-buy problems Currency conversions with best buys Mixed units Money problems with currency conversion e.g. % discounts, reverse percentages	Multi-buy problems Link to currency conversion Real life contexts e.g. interest rates, tax, profit/loss	Compare patterns over time Link to other statistical measures e.g. range, mode etc Non-whole numbers keys for pictograms Fractions/percentages

Year 9

	Autumn 1			Autumn 2			Spring 1		Spring 2		Summer 1		Summer 2	
Unit	Standard Form	Discrete and Continuous Data	Compound Measures	Rounding and Bounds	Expanding and Factorising	Changing the Subject of a Formula	Shape Transformations	Surface Area	Trigonometry	Linear and Non-Linear Graph	Angles in a Polygon	Venn Diagrams and Set Theory	Congruence, Construction and Similarity	Scale Drawings and Bearings
Objectives	By the end of this unit pupils will be able to: - Convert between standard and ordinary form - Use the four operations with standard form	By the end of this unit pupils will be able to: - Read and interpret grouped and ungrouped data - Calculate averages from an ungrouped frequency table - Calculate averages from a grouped frequency table	By the end of this unit pupils will be able to: - Calculate speed, distance and time - Use distance time graphs - Calculate density, mass and volume	By the end of this unit pupils will be able to: - Find upper and lower bounds - Perform calculations using bounds	By the end of this unit pupils will be able to: - Expand a single bracket - Factorise into a single bracket - Expand a set of double brackets - Factorise quadratics	By the end of this unit pupils will be able to: - Change the subject of a formulae that requires 1 or 2 steps - Change the subject of a formulae that requires more than 2 steps	By the end of this unit pupils will be able to: - Describe and complete reflections - Describe and complete translations - Describe and complete rotations - Describe and complete enlargements	By the end of this unit pupils will be able to: - Find the surface area of cubes and cuboids - Find the surface area of prisms - Find the surface area of a cylinder	By the end of this unit pupils will be able to: - Find a missing angle using trigonometry - Find a missing side using trigonometry	By the end of this unit pupils will be able to: - Draw and identify lines parallel to the axes - Find a straight line graph - Find the gradient of a line - Find the equation of a line - Find the equation of parallel and perpendicular lines - Plot quadratic graphs	By the end of this unit pupils will be able to: - Find the sum of interior angles of a polygon - Calculate the interior and exterior angles in a polygon	By the end of this unit pupils will be able to: - Draw Venn diagrams - Find probability from a Venn diagram - Use set notation to calculate probabilities from a Venn diagram	By the end of this unit pupils will be able to: - Identify similar shapes - Use scale factors to find lengths and - Use volume of similar shapes - Construct an angle bisector and a perpendicular bisector - Draw the LoCI of a point and a line - Construct triangles	By the end of this unit pupils will be able to: - Use and interpret scale drawings - Calculate with bearings
Catholic Social Teaching	Option for the Poor and Vulnerable the Common Good			Option for the Poor and Vulnerable Care for God's Creation			Common Good Dignity Option for the Poor and Vulnerable		Solidarity Care for God's Creation		Solidarity Option for the Poor and Vulnerable Care for God's Creation		Solidarity Option for the Poor and Vulnerable	
SEN Adaptations	Visual resources e.g. place value charts Scaffolded tasks Structured examples Relatable contexts/cross curricular e.g. science and space. Signposts with stuck strategies, key vocab and examples	Use relatable data sets Scaffolded questions Signposts with stuck strategies, key vocab and examples	Use real life relatable examples Scaffolded tasks Structured examples Concrete resources to aid with changes in units e.g. km to m Signposts with stuck strategies, key vocab and examples Guided questioning e.g. "what does a flat line mean on a distance time graph"	Use number lines to represent possible values between bounds Structured examples Pictorial representations Scaffolded tasks Signposts with stuck strategies, key vocab and examples	Visual representations e.g. grid method/area models Scaffolded tasks Clear structured examples Concrete representations e.g. algebra tiles Signposts with stuck strategies, key vocab and examples	Structured examples Scaffolded tasks Signposts with stuck strategies, key vocab and examples	Use of tracing paper Write vector translations into written instructions Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Use visual representations e.g. 3D models, nets Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Use visual representations e.g. bar models, number lines, Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Scaffolded tables of values to calculate coordinates Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Provide regions to identify the correct shapes up into triangles Find exterior angles first then find interior angles	Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Providing regions to identify the correct values for probability Key for set notation with visual representations of notation	Coloured diagrams e.g. colour coding matching sides, angles Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Use of visualiser to model how to use protractor Written step by step instructions	Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples
EAL Adaptations	Key words and definitions relevant to the lesson Sentence frames Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Sentence frames Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations Split up compound shapes into more familiar shapes - colour/label the different sections	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations Key for Set notation	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations
Challenge	Order and compare numbers Multiple operations in a question Adjusting standard form values	Compare data across multiple data sets Create a frequency table from other data representations e.g. bar charts	Compare journeys on multiple graphs Use problems that involve conversions between cm^3, m^3 and litres	Use mixed units Apply bounds to multi-step problems	Link to area problems Fractional coefficients Perfect squares and difference of two squares problems Factorise quadratics with a coefficient of x^2 greater than 1	Formulae with negatives and fractions	Negative scale factor; Fractional scale factors Combinations of transformations	Missing dimensions problems, Unit conversion problems Real world problems e.g. boxes, packaging Algebraic dimensions	Multi-step problems Real life applications	Lines with fractional coefficients Quadratics with coefficients of x^2 greater than 1	Combine multiple polygons Irregular polygons Algebraic angles	Three-set Venn diagrams Algebraic values	Combine with loci Perpendiculars from a point to a line Link to real life problems e.g.safe zones Combine triangle constructions with bisectors	Multi-step problems using scale and ratio Combine bearings with trigonometry problems

Year 10

Foundation

	Autumn 1				Autumn 2	Spring 1		Spring 2		Summer 1		Summer 2	
Unit	Whole Number Theory	Ratio	Powers and Roots	Algebraic Expressions	Fractions	Equations	Angles	Perimeter and Area	Standard Form	Bearings	Pythagoras and Trigonometry	Probability and Tree Diagrams	Percentages and Discrete Growth and Decay
Objectives	By the end of this unit pupils will be able to: - Identify factors, multiples and primes - Express a number as a product of its primes - Find the HCF and LCM of 2 or more integers	By the end of this unit pupils will be able to: - Simplify a ratio - Write a ratio in form 1:n or n:1 - Share an amount in a given ratio - Combine multiple ratios to solve problems	By the end of this unit pupils will be able to: - Use the the multiplication and division laws of indices - Use the power of a power index law	By the end of this unit pupils will be able to: - Simplify expressions - Substitute into expressions and formulae - Expand simply a set of single brackets - Factorise an expression into a single bracket - Expand a pair of binomials - Factorise a quadratic	By the end of this unit pupils will be able to: - Express a fraction in its simplest form - Write a quantity as a fraction of another - Find a fraction of an amount - Multiply and divide fractions and mixed numbers - Add and subtract fractions and mixed numbers	By the end of this unit pupils will be able to: - Solve two step equations - Solve equations with unknowns on both sides - Solve quadratics by factorising - Solve simultaneous equations	By the end of this unit pupils will be able to: - Know and use basic angle facts - Know and use co-interior, corresponding and alternate angles to find missing angles in parallel lines - find the interior and exterior angles in a polygon - Calculate the sum of the interior angles of a polygon	By the end of this unit pupils will be able to: - Find the perimeter of compound shapes - find the circumference and arc lengths - Find the area of a circle and a sector - Calculate the area of a trapezium - Find the surface area of a prism and compound shapes - Find the surface area of a cylinder	By the end of this unit pupils will be able to: - Convert between standard and ordinary form - Use the four operations with standard form	By the end of this unit pupils will be able to: - Use bearings to solve problems	By the end of this unit pupils will be able to: - Use Pythagoras' theorem to find missing sides of a right angled triangle - Use trigonometry to find missing sides in a right angled triangle - Use trigonometry to find missing angles in a right angled triangle	By the end of this unit pupils will be able to: - Draw and interpret probability tree diagrams to calculate the probability of independent events - Draw and interpret probability tree diagrams to calculate the probability of dependent events - Calculate relative frequency and use this to estimate probability	By the end of this unit pupils will be able to: - Convert between fractions decimals and percentages - Order fractions, decimals and percentages - Find a percentage of an amount using calculator and non-calculator methods - Increase and decrease an amount by a given percentage - Calculate a percentage change - Calculate with simple and compound interest
Catholic Social Teaching	Care for God's Creation Dignity of work and participation Solidarity				Solidarity Care for God's Creations Option for the Poor and Vulnerable	Dignity of Work and Participation Option for the Poor and Vulnerable		Solidarity Option for the Poor and Vulnerable Common Good		Dignity Care for God's Creation Option for the Poor and Vulnerable		Option for the Poor and Vulnerable Care for God's Creation	
SEN Adaptations	Use multiplication grids Use visual e.g. arrays and factor trees Signposts with stuck strategies, key vocab and examples	Visual representations e.g. bar models Scaffolded tasks Clear structured examples Signposts with stuck strategies, key vocab and examples	Signposts with stuck strategies, key vocab and examples Structured examples e.g., colour code base and powers.	Use of manipulatives Pictoral representations e.g area models, grids Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Use visual representations e.g. bar models Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Visual representations e.g. draw function machines, scales to solve equations Scaffolded tasks Clear structured examples Concrete representations e.g. algebra tiles Signposts with stuck strategies, key vocab and examples Use diagrams in place of letter to form an equation	Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Visual representations e.g. splitting shapes up into triangle, colour coding and highlighting parallel lines and angles find exterior angles first then find interior angles Sentence frames for angle reasoning	Use visual representations e.g. physical shapes or cut outs, counting squares for area Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Provide pupils with key conversions Split up compound shapes into more familiar shapes - colour/label the different sections	Visual resources e.g. place value chart Scaffolded tasks Structured examples Contextualise contexts/cross curricular e.g. science and space. Signposts with stuck strategies, key vocab and examples	Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Use visual representations e.g. drawing the right angled triangle and finding the areas of the squares from each side. Colour code the sides e.g. red for small sides, blue for longer	Use real life relatable examples e.g. coins/dice Pictoral representations e.g. coloured counters Colour coded branches Structured examples Signposts with stuck strategies, key vocab and examples	Use visual representations e.g. bar models, number lines. Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Use visualise to live model how to use the functions on a calculator
EAL Adaptations	Use visuals e.g. arrays and factor trees Key words and definitions relevant to the lesson Sentence frames Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Pictoral models e.g. bar models	Sentence frames Structured examples Consistent language Link language to symbols where possible	Pictoral Representations Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations Split up compound shapes into more familiar shapes - colour/label the different sections	Key words and definitions relevant to the lesson Sentence frames Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations Use visualise to live model how to use the functions on a calculator
Challenge	HCF and LCM given index form	Multi-step problems Algebraic contexts Combining ratios and simultaneous equations	Negative indices Fractional indices Use algebraic expressions with coefficients Multi-step problems that combine the different laws	Negative and fractional terms Polynomials beyond linear Expand expressions with multiple terms Substitute negatives and fractions	Combine adding decimals and percentages to fractions Use in real life contexts	Negative coefficients Link to area and perimeter Include fractions	Combine multiple polygons Irregular polygons Algebraic angles	Find the perimeter of irregular shapes and compound shapes Use area/perimeter in problem solving e.g walls, fences Algebraic area/perimeter	Order and compare numbers Multiple operation in a question Adjusting standard form values	Multi-step problems link to scale and ratio Combine bearings with trigonometry problems	Multi-step problems Real life applications Worded problems	Unequal probabilities e.g. biased dice Algebraic probabilities	Use unusual percentages Recurring decimals growth & decay Multi-step problems Link to currency conversion Real life contexts e.g. interest rates, tax, profit/loss, growth & decay

Higher

	Autumn 1				Autumn 2	Spring 1		Spring 2		Summer 1		Summer 2	
Unit	Whole Number Theory	Ratio	Powers and Roots	Algebraic Expressions	Fractions	Equations	Quadratics	Angles	Perimeter and Area	Bearings	Pythagoras and Trigonometry	Probability and Tree Diagrams	Decimals
Objectives	By the end of this unit pupils will be able to: - Identify factors, multiples and primes - Express a number as a product of its primes - Find the HCF and LCM of 2 or more integers	By the end of this unit pupils will be able to: - Simplify a ratio - Write a ratio in form 1:n or n:1 - Share an amount in a given ratio - Combine multiple ratios to solve problems	By the end of this unit pupils will be able to: - Use the the laws of indices - Calculate with negative and fractional indices	By the end of this unit pupils will be able to: - Simplify expressions - Substitute into expressions and formulae - Expand a set of single brackets - Factorise an expression into a single bracket - Expand a pair of binomials - Factorise a quadratic - Expand a set of triple brackets	By the end of this unit pupils will be able to: - Express a fraction in its simplest form - Write a quantity as a fraction of another - Find a fraction of an amount - Multiply and divide fractions and mixed numbers - Add and subtract fractions and mixed numbers - Simplify algebraic fractions - Use the four operations with algebraic fractions	By the end of this unit pupils will be able to: - Solve two step equations - Solve equations with unknowns on both sides - Solve quadratics by factorising - Solve simultaneous equations	By the end of this unit pupils will be able to: - Solve Quadratics using factorisation - Use the quadratic formula - Solve equations by rearranging the square - Use iterations to approximate solutions - Solve quadratic simultaneous equations	By the end of this unit pupils will be able to: - Know and use basic angle facts - Know and use co-interior, corresponding and alternate angles to find missing angles in parallel lines - find the interior and exterior angles in a polygon - Calculate the sum of the interior angles of a polygon	By the end of this unit pupils will be able to: - Find the perimeter of compound shapes - find the circumference and arc lengths - Find the area of a circle and a sector - Calculate the area of a trapezium - Find the surface area of a prism and compound shapes - Find the surface area of a cylinder	By the end of this unit pupils will be able to: - Use bearings to solve problems	By the end of this unit pupils will be able to: - Use Pythagoras theorem to find missing sides of a right angled triangle - Use Pythagoras in 3D shapes - Use trigonometry to find missing sides in a right angled triangle - Use trigonometry to find missing angles in a right angled triangle - Calculate with the Sine and Cosine rules - Find the area of a triangle using the Sine rule.	By the end of this unit pupils will be able to: - Draw and interpret probability tree diagrams to calculate the probability of independent events - Draw and interpret probability tree diagrams to calculate the probability of dependent events - Calculate relative frequency and use this to estimate probability	By the end of this unit pupils will be able to: - Convert a fraction to a recurring decimal - Convert a recurring decimal to a fraction
Catholic Social Teaching	Care for God's Creation Dignity of work and participation Solidarity				Dignity of Work and Participation The Common Good			The Common Good Care for God's Creation Dignity of Work and Participation		Care for God's Creation		The Common Good Dignity Solidarity	
SEN Adaptations	Use multiplication grids Use visual e.g. arrays and factor trees Signposts with stuck strategies, key vocab and examples	Visual representations e.g. bar models Scaffolded tasks Clear structured examples Signposts with stuck strategies, key vocab and examples	Signposts with stuck strategies, key vocab and examples Structured examples e.g., colour code base and powers.	Use of manipulatives Pictoral representations e.g area models, grids Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Use visual representations e.g. bar models Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Visual representations e.g. draw function machines, scales to solve equations Scaffolded tasks Clear structured examples Concrete representations e.g. algebra tiles Signposts with stuck strategies, key vocab and examples Use diagrams in place of letter to form an equation	Use visual representations Structured examples Signposts with stuck strategies, key vocab and examples	Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Visual representations e.g. splitting shapes up into triangle, colour coding and highlighting parallel lines and angles Find exterior angles first then find interior angles Sentence frames for angle reasoning	Use visual representations e.g. physical shapes or cut outs, counting squares for area Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Provide pupils with key conversions Split up compound shapes into more familiar shapes - colour/label the different sections	Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Use visual representations e.g. drawing the right angled triangle and finding the areas of the squares from each side. Colour code the sides e.g. red for small sides, blue for longer	Use real life relatable examples e.g. coins/dice Pictoral representations e.g. coloured counters Colour coded branches Structured examples Signposts with stuck strategies, key vocab and examples	Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples
EAL Adaptations	Use visuals e.g. arrays and factor trees Key words and definitions relevant to the lesson Sentence frames Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Pictoral models e.g. bar models	Sentence frames Structured examples Consistent language Link language to symbols where possible	Pictoral Representations Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations Split up compound shapes into more familiar shapes - colour/label the different sections	Key words and definitions relevant to the lesson Sentence frames Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations Use visualise to live model how to use the functions on a calculator
Challenge	HCF and LCM given index form	Multi-step problems Algebraic contexts Combining ratios and simultaneous equations	Use algebraic expressions with coefficients Multi-step problems that combine the different laws	Negative and fractional terms Polynomials beyond linear Expand expressions with multiple terms Substitute negatives and fractions	Combine adding decimals and percentages to fractions Use in real life contexts	Negative coefficients Link to area and perimeter Include fractions	Connect to quadratic graphs, roots and turning points Derive the quadratic formula from completing the square	Combine multiple polygons Irregular polygons Algebraic angles	Find the perimeter of irregular shapes and compound shapes Use area/perimeter in problem solving e.g walls, fences Algebraic area/perimeter	Multi-step problems link to scale and ratio Combine bearings with trigonometry problems	Multi-step problems Real life applications Worded problems	Unequal probabilities e.g. biased dice Algebraic probabilities	Use improper fractions and mixed numbers

Year 11

Foundation

	Autumn 1				Autumn 2				Spring 1			Spring 2			Summer Term
Unit	Transformations and Vector Geometry	Approximation and Bounds	Graphs	Sequences and Functions	Volume	Similarity, Construction and Congruence	Averages	Units and Measurements	Proportion	Collecting and Displaying Data	Probability	Changing the Subject of a Formula	Algebraic Inequalities	Percentages and Discrete Growth and Decay	Exams and Revision
Objectives	By the end of this unit pupils will be able to: - Describe and complete reflections - Describe and complete translations - Describe and complete rotations - Describe and complete enlargements - Use and represent vectors	By the end of this unit pupils will be able to: - Estimate the solutions to calculations - Find upper and lower bounds - Perform calculations using bounds	By the end of this unit pupils will be able to: - Draw and identify lines parallel to the axis - Plot a straight line graph - Find the gradient of a line - Find the equation of a line - Find the equation of parallel and perpendicular lines - Plot quadratic graphs	By the end of this unit pupils will be able to: - Find the nth term of a sequence - Generate a sequence given the nth term	By the end of this unit pupils will be able to: - Know the properties of 3D shapes - Find the volume of cubes and cuboids - Calculate the volume of a prisms - Calculate the volume of a cylinder	By the end of this unit pupils will be able to: - Identify similar shapes - Use scale factors to find the area and volume of similar shapes - Construct an angle bisector and a perpendicular bisector - Draw the Locf of a point and a line - Construct triangles	By the end of this unit pupils will be able to: - Find the mode, median, mean and range from a set of data - Compare data using averages - Read and interpret grouped and ungrouped data - Calculate averages from an ungrouped frequency table - Calculate averages from a grouped frequency table :	By the end of this unit pupils will be able to: - Calculate speed, distance and time - Use distance time graphs - Calculate density, mass and volume	By the end of this unit pupils will be able to: - Solve direct and inverse proportion problems - Find the best value item - Scale recipes up and down - Calculate currency conversions	By the end of this unit pupils will be able to: - Draw and interpret bar charts, composite and comparative bar charts - Draw and interpret pictograms - Draw and interpret scatter graphs	by the end of this unit pupils will be able to: - Draw Venn diagrams - Find the probability from a Venn diagram - Use set notation to calculate probabilities from a Venn diagram	By the end of this unit pupils will be able to: - Change the subject of a formulae - Change the subject of a formulae that requires more than 2 steps	by the end of this unit pupils will be able to: - Represent inequalities on a numbers - Solve inequalities	By the end of this unit pupils will be able to: Convert between fractions decimals and percentages - Order fractions, decimals and percentages - Find a percentage of an amount using calculator and non-calculator methods - Increase and decrease an amount by a given percentage - Calculate a percentage change - Calculate with simple and compound interest	Past Paper Practice Revision Exams
Catholic Social Teaching	Care for God's Creation Dignity of work and participation Option for the Poor and Vulnerable				Care for God's Creation Dignity of Work and Participation Solidarity				Care for God's Creation Option for the Poor and Vulnerable			Option for the Poor and Vulnerable Dignity of Work and Participation			
SEN Adaptations	Use of tracing paper Turn vector translations into written instructions Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Use number lines to represent possible values between bounds Structured examples Pictoral representations Scaffolded tasks Signposts with stuck strategies, key vocab and examples	Scaffolded tables of values to calculate coordinates Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Use number lines/diagrams Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Use tables for step-by-step calculations	Structured examples Pictoral/concrete representations - 3D models/ nets, use unit cubes to build shapes Scaffolded tasks Signposts with stuck strategies, key vocab and examples	Coloured diagrams e.g. colour coding matching sides,angles Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Use of visualiser to model how to use protractor Written step by step instructions	Use visual representations e.g. towers Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	- Use real life relatable examples Scaffolded tasks Structured examples Conversion table to aid with changes in units e.g. km to m Signposts with stuck strategies, key vocab and examples Guided questioning e.g. "what does a flat line mean on a distance time graph"	Use visual representations e.g. bar models Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Use real life examples e.g. actual supermarkets prices for beef buys Use tables to compare quantities	Use relatable examples e.g. real-life meaningful and relatable data Use visual representations Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Clear and simply symbols for pictograms	Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Shading regions to identify the correct values for probability Key for set notation with visual representations of notation	Structured examples Scaffolded tasks Signposts with stuck strategies, key vocab and examples	Structured examples Signposts with stuck strategies, key vocab and examples Encourage verbalising inequality before drawing it	Use visual representations e.g. bar models, number lines. Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Use visualise to live model how to use the functions on a calculator	
EAL Adaptations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations e.g. counters, diagrams	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations Provide pupils with key angle facts	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations Key for set notation	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations Use visualise to live model how to use the functions on a calculator	
Challenge	Negative scale factors Fractional scale factors Combinations of transformations	Use mixed units Apply bounds to multi-step problems	Lines with fractional coefficients Quadratics with coefficients of x^2	Sequences with negative, decimal and fractional terms Non-linear sequences	Apply to real life objects such as packaging, water tanks, beams Algebraic lengths Application to real-life contexts Find missing dimensions	Combine with loci Perpendiculars from a point to a line Link to real life problems e.g.safe zones Combines triangle constructions with bisectors	Larger data sets inc decimals Evaluate what average is appropriate in a given context Find missing values when given an average Compare data across multiple data sets Create a frequency table from other data representations e.g. bar charts	Compare journeys on multiple graphs Use problems that involve conversions between cm^3, m^3 and litres	Multi-buy problems Percentage discounts Currency conversions with best buys Mixed units Money problems with currency conversion e.g. % discounts, reverse percentages	Compare patterns over time Link to other statistical mesures e.g. range, mode etc Non-whole numbers keys for pictograms fractions/percentages	Three-set Venn diagrams Algebraic values	Formula with negatives and fractions	Negative values, decimals, fractions Compound inequalities Link to graphical representations	Use unusual percentages Recurring decimals growth & decay Multi-step problems Link to currency conversion Real life contexts e.g. interest rates, tax, profit/loss, growth & decay	

Higher

	Autumn 1				Autumn 2				Spring 1			Spring 2				Summer Term
Unit	Percentages and Compound Interest	Transformations and Vector Geometry	Circle Theorems	Standard Form	Approximation and Bounds	Graphs and Transformations	Direct and Inverse Proportion	Sequences and Function Machines	Measures	Loci and Construction	Volume and Surface Area	Similarity and Congruence	Surds	Changing the Subject of a Formula	Collecting and Interpretting Data	Algebraic Inequalities	Exams and Revision
Objectives	By the end of this unit pupils will be able to: - Convert between fractions decimals and percentages - Order fractions, decimals and percentages - Find a percentage of an amount using calculator and non-calculator methods - Increase and decrease an amount by a given percentage - Calculate a percentage change - Calculate with simple and compound interest	By the end of this unit pupils will be able to: - Describe and complete reflections - Describe and complete translations - Describe and complete rotations - Describe and complete enlargements - Use and represent vectors - Geometric proofs with vectors	By the end of this unit pupils will be able to: - Know and use circle theorems to find missing angles in geometric problems - Use circle theorems to solve proof based problems	By the end of this unit pupils will be able to: - Convert between standard and ordinary form - Use the four operations with standard form	By the end of this unit pupils will be able to: - Estimate the solutions to calculations - Find upper and lower bounds - Perform calculations using bounds	By the end of this unit pupils will be able to: - Draw and identify lines parallel to the axis - Plot a straight line graph - Find the equation of a line - Find the equation of parallel and perpendicular lines - Draw non-linear graphs - Use trigonometric graphs - Use transformations with graphs	By the end of this unit pupils will be able to: - Use direct and inverse proportion graphs - Use direct and inverse proportion algebraically	By the end of this unit pupils will be able to: - Recognise and generate sequences - Find the nth term of a quadratic sequence - Use composite functions and the iterative processes	By the end of this unit pupils will be able to: - Calculate speed, distance and time - Use Distance time graphs - Calculate density, mass and volume	By the end of this unit pupils will be able to: - Construct an angle bisector and a perpendicular bisector - Draw the Locf of a point and a line - Construct triangles	By the end of this unit pupils will be able to: - Find the volume of prisms and cylinders - Find the surface area and volume of pyramids, cones and spheres	By the end of this unit pupils will be able to: - Identify similar shapes - Use scale factors to find the area and volume of similar shapes	by the end of this unit pupils will be able to: - Simplify surds - Rationalise the denominator - Expand and simplify expressions with surds	By the end of this unit pupils will be able to: - Change the subject of a formulae that requires 1 or 2 steps - change the subject of a formulae that requires more than 2 steps	By the end of this unit pupils will be able to: - Use and interpret grouped and ungrouped frequency tables - Draw and interpret pie charts - Draw and interpret histograms	By the end of this unit pupils will be able to: - Solve linear inequalities - Represent inequalities on a number line - Solve and represent double inequalities	
Catholic Social Teaching	Care for God's Creation Dignity of work and participation Solidarity				The Common Good Care for God's Creation Dignity of Work and Participation				Care for God's Creation			The Common Good Dignity Solidarity					

	SEN Adaptations	Use visual representations e.g. bar models, number lines, Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples We visualise to live model how to use the functions on a calculator	Use of tracing paper Turn vector translations into written instructions Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Signposts with stuck strategies, key vocab and examples Structured Examples e.g. colour code base and powers. Colour-coded annotations - Highlight equal angles and key radii	Visual resources e.g. place value charts Scaffolded tasks Structured examples Relatable contexts/cross curricular e.g. science and space. signposts with stuck strategies, key vocab and examples	Use number lines to represent possible values between bounds Structured examples Pictorial representations Scaffolded tasks Signposts with stuck strategies, key vocab and examples	Scaffolded tables of values to calculate coordinates Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples	Use visual representations Structured examples Signposts with stuck strategies, key vocab and examples	Use visual representations Structured examples Signposts with stuck strategies, key vocab and examples	Use real life relatable examples Scaffolded tasks Structured examples Conversion table to aid with changes in units e.g. km to m Signposts with stuck strategies, key vocab and examples Guided questioning e.g. "what does a flat line mean on a distance time graph?"	Scaffolded tasks Structured examples Signposts with stuck strategies, key vocab and examples Use of visualiser to model how to use compass Written step by step instructions	Structured examples Pictorial/Concrete representations - 3D models/ nets, use unit cubes to build shapes Scaffolded tasks Signposts with stuck strategies, key vocab and examples	Structured examples Pictorial/concrete representations - 3D models/ nets, use unit cubes to build shapes Scaffolded tasks Signposts with stuck strategies, key vocab and examples	Use visual representations Structured examples Signposts with stuck strategies, key vocab and examples Colour code perfect square factors	Structured examples Scaffolded tasks Signposts with stuck strategies, key vocab and examples	Structured examples Scaffolded tasks Signposts with stuck strategies, key vocab and examples	Structured examples Scaffolded tasks Signposts with stuck strategies, key vocab and examples	Past Paper Practice Revision Exams
	EAL Adaptations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations We visualise to live model how to use the functions on a calculator	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Sentence frames to ensure key theorems are use correctly Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Sentence frames Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible Visual representations	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Structured examples Consistent language Link language to symbols where possible	Key words and definitions relevant to the lesson Sentence frames Structured examples Consistent language Link language to symbols where possible	
	Challenge	Use unusual percentages Recurring decimals growth & decay Multi-step problems Link to currency conversion Real life contexts e.g. interest rates, tax, profit/loss, growth & decay	Negative scale factors Fractional scale factors Combinations of transformations	Combine multiple theorems into one question Algebraic expressions for unknown angles Multi-step proofs	Order and compare numbers Multiple operation in a question Adjusting standard form values	Use mixed units Apply bounds to multi-step problems	Lines with fractional coefficients Quadratics with coefficients of x^2	Link algebraic proportion to proportion graphs	Predict terms Non integer coefficients of x^2	Compare journeys on multiple graphs Use problems that involve conversions between cm^3, m^3 and litres	Combine with loci Perpendiculars from a point to a line Link to real life problems e.g.safe zones Combines triangle constructions with bisectors	Apply to real life objects such as packaging, water tanks, beams Find missing dimensions Unit conversion problems Real world problems e.g. boxes, packaging Algebraic dimensions	Multi-step problems Real life applications Worded problems Change of units	Rational binomial denominators Factorise expressions with surds	Formulas with negatives and fractions	Algebraic values in pie charts Missing value in histograms Unequal class widths Compare data across multiple data sets Create a frequency table from other data representations e.g. bar charts	Negative values, decimals, fractions Compound inequalities Link to graphical representations	