

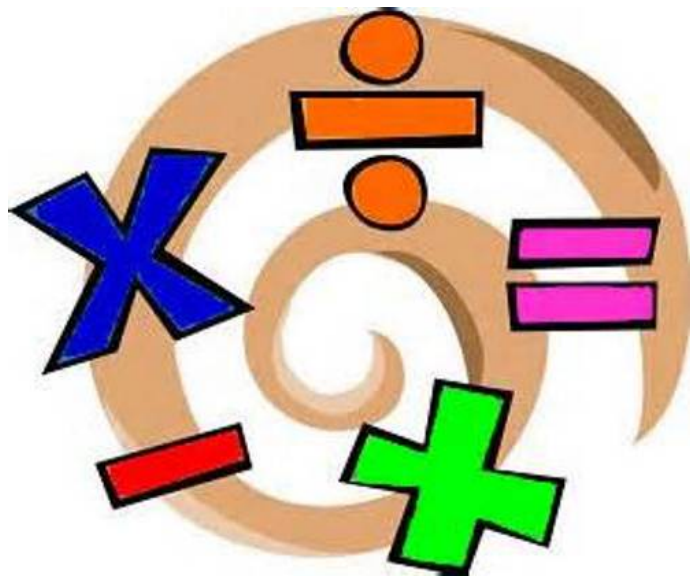
THE BECKET

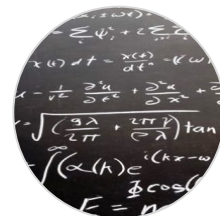


SCHOOL
A CATHOLIC
VOLUNTARY
ACADEMY

PERSONAL LEARNER CHECKLIST KS4

GCSE Maths Foundation





Subject: Mathematics Foundation

Year Group: 11

Subject Leader: Mr Pickup

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What Specification (syllabus) is being taught?	OCR Mathematics (9-1) J560
What are the key topics and themes? When will they be taught?	<p>5 key areas of Number, Algebra, Geometry & measure, Probability & Statistics and Ratio & proportion have been taught over the last three years.</p> <p>Students have also been supported in presenting a reasoned answer for all questions as there is a much bigger focus on problem solving and interpretation in this new exam.</p>
How will my son or daughter be assessed? When do these assessments take place?	<p>Paper 1 –Calculator (1 hour 30 minutes, 33.3% of GCSE grade) –</p> <p>Paper 2 – Non Calc (1 hour 30 minutes, 33.3% of GCSE grade) –</p> <p>Paper 3 –Calculator (1 hour 30 minutes, 33.3% of GCSE grade) –</p> <p>All students will need a scientific calculator, protractor, compass and ruler.</p>
What can my son or daughter do for revision at home? What materials are provided or available online?	<p>Students will be receiving past papers from the maths department at regular intervals</p> <ul style="list-style-type: none"> • www.ocr.co.uk specification and some sample papers. • www.justmaths.co.uk Google in 9-1 Foundation to get ALL of the questions from ALL of the specimen papers to practise the new types of question. • www.getrevising.co.uk/ 1,000s of searchable revision materials including quizzes and exam questions. • www.corbettmaths.com/ 5 a day useful for daily maths revision. Provides 5 questions at your chosen level with answers to support revision. Website also has lots of supportive video clips. • https://diagnosticquestions.com/ Student will have to sign up (it's free and you do not have to supply an email). Extensive range of online mini-tests which will mark the tests for students and show mistakes. Students can then access other student's answers to help them understand why they were wrong. <p>Year 11 Higher Code: SC-8ZQ743PW0F7G Year 11 Foundation Code: SC-R5GEJ5SCNLLQ</p> <ul style="list-style-type: none"> • www.mathsgenie.co.uk lots of revision resources • www.mathswebsite.com Worksheets and videos with free sign up

Unit 1: Number (Foundation)					
Secure (S)	1	divide BY a decimal number			
	2	round to a given number of significant figures			
	3	estimate the answer to a problem by rounding given numbers to 1 sig fig			
	4	Write error intervals using decimal places and significant figures			
	5	use the product of prime factors in a Venn diagram to find HCF and LCM			
	6	use HCF and LCM to solve problems			
	7	use the laws of indices:			
	8	Able to use and combine different areas of maths to solve problems			
	9	Solutions are complete and justified with step-by-step working			
Developing (D)	1	round to a given number of decimal places			
	2	multiply decimal numbers			
	3	divide a decimal number			
	4	split a number into its product of prime factors			
	5	find HCF and LCM by listing			
	6	Extract and use key information to solve a worded problem			
	7	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	add, subtract integers			
	2	multiply by a single digit			
	3	divide by a single digit			
	4	multiply and divide by 2 digit integers			
	5	recognise factors of an number and multiples of a number			
	6	recognise prime numbers, square numbers, cube numbers			
	7	Choose the correct maths to solve a problem			
	8	Solution shows some stages of working when finding your answer			

Unit 2: ALGEBRA (Foundation)

Unit 2: ALGEBRA (Foundation)					
Secure (S)	1	use index laws for algebra			
	2	divide expressions			
	3	substitute positive and negative numbers into expressions			
	4	substitute positive and negative numbers into a formula and draw conclusion			
	5	substitute numbers into expressions with brackets and powers			
	6	factorise by taking out a common factor			
	7	Able to use and combine different areas of maths to solve problems			
	8	Solutions are complete and justified with step-by-step working			
Developing (D)	1	simplify algebraic expressions by collecting like terms with + and - and different letters			
	2	multiply expressions			
	3	Substitute numbers into function machines to find inputs and outputs			
	4	substitute positive numbers into expressions			
	5	recognise factors of algebraic terms			
	6	use the identity symbol \equiv and the not equal to symbol to create accurate statements \neq			
	7	Extract and use key information to solve a worded problem			
	8	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	use correct notation - know difference between $2a = a+a$ and $a \times a = a^2$			
	2	can write an expression to match a given situation. Eg I have x pens. J has 3 more - how many is that?			
	3	simplify algebraic expressions by collecting like terms with + and - but SAME letters			
	4	recognise difference between an expression, a formula and an equation			
	5	Choose the correct maths to solve a problem			
	6	Solution shows some stages of working when finding your answer			

Unit 3: Graphs (Foundation)

Secure (S)	1	Design a two-way table			
	2	Know the difference between a bar chart and a histogram			
	3	Predict trends using a time series graph			
	4	Draw a pie chart			
	5	Interpret a scatter graph using line of best fit and predicting values			
	6	Able to use and combine different areas of maths to solve problems			
	7	Solutions are complete and justified with step-by-step working			
Developing (D)	1	Design a data collection sheet			
	2	Use data from a table.			
	3	Use a two-way table to answer questions			
	4	Draw and interpret comparative and composite bar charts			
	5	Plot and interpret a time series graph			
	6	Plot a scatter graph			
	7	Extract and use key information to solve a worded problem			
	8	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	Read data from a table			
	2	Draw a bar chart			
	3	Read values from a bar chart			
	4	Read values from a pie chart			
	5	Determine whether or not there is a relationship between set of data using a scatter graph			
	6	Choose the correct maths to solve a problem			
	7	Solution shows some stages of working when finding your answer			

Unit 4: Fractions and Percentages (Foundation)

Unit 4: Fractions and Percentages (Foundation)					
Secure (S)	1	Use fractions to solve addition and subtraction problems, including comparing fractions			
	2	Multiply mixed numbers			
	3	Divide a whole number by a fraction			
	4	Use fractions to solve problems involving all operations			
	5	Calculate percentage increase and decrease using percentage multiplier			
	6	Use percentage increases in real-life situations			
	7	Use percentages to solve problems			
Developing (D)	1	Add and subtract fractions with same and different denominators and mixed numbers			
	2	Multiply whole numbers, and fractions			
	3	Divide a fraction by a whole number or a fraction			
	4	Use decimals to find quantities			
	5	Write one number as a fraction/percentage of another			
	6	Calculate percentage increase and decrease with and without a calculator			
Foundation (F)	1	Find a fraction of a quantity			
	2	Simplify fractions by cancelling			
	3	Convert fractions to decimals and vice versa			
	4	Convert percentages to fractions and decimals and vice versa			
	5	Find a percentage of a quantity with a calculator			
	6	Calculate VAT			
	7	Calculate simple interest			

Unit 5: Equations, Inequalities and Sequences (Foundation)

Unit 5: Equations, Inequalities and Sequences (Foundation)					
Secure (S)	1	Solve equations including brackets e.g. $3(2x - 5) = 14$			
	2	Solve equations with unknowns on both sides e.g. $3x + 10 = 5x - 3$			
	3	Create and solve equations from worded problems or diagrams			
	4	Solve two sided inequalities e.g. $20 < 3x - 1 < 29$			
	5	Find and use the nth term of a descending sequence			
	6	Solve and justify problems using sequences e.g. Is 27 in the sequence $5n + 4$			
	7	Able to use and combine different areas of maths to solve problems			
	8	Solutions are complete and justified with step-by-step working			
Developing (D)	1	Solve two step equations e.g. $2x + 1 = 11$			
	2	Solve equations with negative or fractional answers			
	3	Expand a single bracket e.g. $3(2x + 5)$			
	4	Define and use the identity symbol			
	5	Create expressions from worded problems			
	6	Find the integer solutions to a double sided inequality			
	7	Solve a one-sided inequality			
	8	Recognise and extend sequences including Fibonacci			
	9	Find and use the nth term of an ascending sequence			
	10	Extract and use key information to solve a worded problem			
	11	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	Solve one step equations e.g. $3x = 15$			
	2	Know the difference between an equation, expression and formula			
	3	Understand the word integer and the difference between $<$ and \leq			
	4	Show an inequality on a number line			
	5	Recognise and extend simple sequences			
	6	Recognise patterns in shape or diagram sequences			
	7	Choose the correct maths to solve a problem			
	8	Solution shows some stages of working when finding your answer			

Unit 6: ANGLES (Foundation)

Unit 6: ANGLES (Foundation)					
Secure (S)	1	recognise alternate and corresponding and co interior angles on a pair of parallel lines			
	2	find interior and exterior angles of polygons, and use that to work out how many sides a regular polygon will have. Know the formula and the justification.			
	3	know that interior and exterior angles of a polygon are on a straight line so add up to 180 degrees			
	4	know that $360 \div \text{number of sides} = \text{interior angle}$			
	5	use algebra to find missing angles			
	6	justify why some shapes tessellate and others do not			
	7	Able to use and combine different areas of maths to solve problems			
	8	Solutions are complete and justified with step-by-step working			
Developing (D)	1	know and use the fact that angles in a quadrilateral add up to 360 degrees			
	2	know and use the fact that angles in a triangle add up to 180 degrees			
	3	know that congruent triangles are exactly the same and similar triangles are in proportion			
	4	know the number of sides of different polygons and what makes a polygon regular			
	5	Extract and use key information to solve a worded problem			
	6	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	name all quadrilaterals			
	2	know the properties of quadrilaterals			
	3	use the correct notation to describe/ identify angles and sides			
	4	use words like parallel and perpendicular to describe sides and diagonals of shapes			
	5	use words like acute and obtuse and reflex to describe the size of an angle			
	6	know the names of triangles - scalene, isosceles and equilateral, and the properties of each			
	7	Choose the correct maths to solve a problem			
	8	Solution shows some stages of working when finding your answer			

Unit 7: Averages and Range (Foundation)

Unit 7: Averages and Range (Foundation)					
Secure (S)	1	Estimate the mean of grouped data.			
	2	Estimate the range from a grouped frequency table.			
	3	Find the median from a frequency table.			
	4	Understand the need for sampling.			
	5	Understand how to avoid bias.			
	6	Find averages and range from different types of graphs			
	7	Able to use and combine different areas of maths to solve problems			
	8	Solutions are complete and justified with step-by-step working			
Developing (D)	1	Calculate the mean from a frequency table.			
	2	Find the modal class.			
	3	Identify outliers.			
	4	Find the mode, median and range from a stem and leaf diagram.			
	5	Recognise the advantages and disadvantages of each type of average.			
	6	Extract and use key information to solve a worded problem			
	7	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	Compare sets of data using the mean and range.			
	2	Find the mode, median and range from a list			
	3	Calculate the mean from a list			
	4	Choose the correct maths to solve a problem			
	5	Solution shows some stages of working when finding your answer			

Unit 8: Perimeter, Area and Volume (Foundation)

Secure (S)	1	Find the height of a trapezium given its area.			
	2	Convert between area measures.			
	3	Solve problems involving surface area and volume.			
	4	Convert between measures of volume.			
	5	Calculate the surface area of a prism.			
	6	Find the area and perimeter of composite shapes			
	7	Find the area and circumference of circles			
	8	Able to use and combine different areas of maths to solve problems			
	9	Solutions are complete and justified with step-by-step working			
Developing (D)	1	Calculate the perimeter and area of rectangles, parallelograms and triangles.			
	2	Calculate the area and perimeter of trapezia.			
	3	Estimate lengths, areas and costs.			
	4	Calculate areas in hectares, and convert between ha and m ² .			
	5	Calculate the volume of a prism.			
	6	Calculate the perimeter and area of shapes made from triangles and rectangles.			
	7	Extract and use key information to solve a worded problem			
	8	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	Calculate the perimeter and area of squares, rectangles and parallelograms			
	2	Calculate a missing length, given the area.			
	3	Calculate the volume of a cuboid			
	4	Calculate the surface area of a cuboid.			
	5	Choose the correct maths to solve a problem			
	6	Solution shows some stages of working when finding your answer			

Unit 9: Graphs (Foundation)

Unit 9: Graphs (Foundation)					
Secure (S)	1	Solve problems using distance-time graphs			
	2	Solve problems using real life graphs			
	3	Understand when predictions are reliable			
	4	Able to use and combine different areas of maths to solve problems			
	5	Solutions are complete and justified with step-by-step working			
Developing (D)	1	Find the midpoint of a line segment			
	2	Find the gradient of a line, understand parallel lines have the same gradient			
	3	Understand and use $y=mx+c$ to draw graphs from equations and write equations of graphs			
	4	Draw distance-time graphs			
	5	Draw and interpret graphs from real data			
	6	Extract and use key information to solve a worded problem			
	7	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	Plot coordinates in all 4 quadrants			
	2	Plot straight line graphs from a table of values			
	3	Generate coordinates from a rule			
	4	Recognise name and plot graphs parallel to x and y axes			
	5	Recognise name and plot graphs of $y = x$ and $y = -x$			
	6	Choose the correct maths to solve a problem			
	7	Solution shows some stages of working when finding your answer			

Unit 10: Transformations (Foundation)

Secure (S)	1	Draw reflections from a stated line on a coordinate grid e.g. $x = 2$			
	2	Describe a reflection by stating the equation of the mirror line			
	3	Describe an enlargement			
	4	Transform a shape using more than one transformation			
	5	Describe combined transformation of a shape on a coordinate grid			
	6	Able to use and combine different areas of maths to solve problems			
	7	Solutions are complete and justified with step-by-step working			
Developing (D)	1	Use a column vector to describe a translation			
	2	Draw a reflection of a shape in a diagonal mirror line			
	3	Rotate a shape on a coordinate grid			
	4	Describe a rotation			
	5	Enlarge a shape by a scale factor with a centre of enlargement			
	6	Identify the scale factor of enlargement			
	7	Find the centre of enlargement			
	8	Extract and use key information to solve a worded problem			
	9	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	Translate a shape on a coordinate grid			
	2	Draw a reflection of a shape in a horizontal/vertical mirror line			
	3	Rotate a shape around a given point			
	4	Enlarge a shape by a scale factor without a centre			
	5	Choose the correct maths to solve a problem			
	6	Solution shows some stages of working when finding your answer			

Unit 11: Ratio & Proportion (Foundation)

Secure (S)	1	Use ratios to represent enlargements			
	2	Divide a quantity into 3 parts in a given ratio			
	3	Interpret ratios as fractions to solve problems			
	4	Recognise and use direct proportion on a graph			
	5	Recognise different types of proportion			
	6	Solve worded problems involving direct and inverse proportion			
	7	Able to use and combine different areas of maths to solve problems			
	8	Solutions are complete and justified with step-by-step working			
Developing (D)	1	Create a ratio from a worded problem			
	2	Use ratios to convert metric conversions e.g. maps			
	3	Divide a quantity into 2 parts in a given ratio			
	4	Work out which problem is better value for money			
	5	Solve worded proportion problems			
	6	Extract and use key information to solve a worded problem			
	7	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	Write a ratio in its simplest form			
	2	Create a ratio from a pictorial problem			
	3	Write a ratio in the form 1 : n			
	4	Solve simple proportion problems e.g. recipes			
	5	Choose the correct maths to solve a problem			
	6	Solution shows some stages of working when finding your answer			

Unit 12: Right Angled Triangles (Foundation)

Unit 12: Right Angled Triangles (Foundation)					
Secure (S)	1	Solve problems using Pythagoras' Theorem			
	2	Know the exact value of sine, cosine and tangent for key angles			
	3	Solve problems using trigonometry			
	4	Able to use and combine different areas of maths to solve problems			
	5	Solutions are complete and justified with step-by-step working			
Developing (D)	1	Find the length of a line segment AB			
	2	Remember the formulas for trigonometry			
	3	Use trigonometry to calculate the length of a side			
	4	Use trigonometry to calculate the size of an angle			
	5	Extract and use key information to solve a worded problem			
	6	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	Remember Pythagoras Theorem			
	2	Find the length of the hypotenuse using Pythagoras Theorem			
	3	Find the length of a shorter side in right-angled triangles			
	4	Know how to label a triangle for trigonometry			
	5	Choose the correct maths to solve a problem			
	6	Solution shows some stages of working when finding your answer			

Unit 13 GCSE 9-1: Probability (Foundation)					
Secure (S)	1	Understand the use of sets and Venn diagrams			
	2	Use Venn Diagrams to work out probabilities			
	3	Complete a Venn diagram given a set of conditions			
	4	Make a prediction of the number of times an event will happen based on probability, including experimental data.			
	5	Complete a tree diagram for independent events			
	6	Complete a tree diagram for conditional events			
	7	Able to use and combine different areas of maths to solve problems			
	8	Solutions are complete and justified with step-by-step working			
Developing (D)	1	Know that the sum of mutually exclusive and exhaustive events = 1			
	2	Use the above to work out probabilities			
	3	Use two way tables (or sample space diagrams) to record the outcomes from two events			
	4	Work out probabilities from sample-space diagrams and two-way tables			
	5	Find probabilities from experimental data			
	6	Use tree diagrams to calculate probability			
	7	Extract and use key information to solve a worded problem			
	8	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	Know that the probability is the likelihood of something happening, on a scale of impossible to certain			
	2	Estimate a probability of a certain event occurring, e.g. The probability of the sun shining this week = likely			
	3	Estimate a value of a certain event occurring on a scale of 0-1			
	4	Know that the probability of an outcome = number of ways the outcome can happen ÷ total number of possible outcomes			
	5	Choose the correct maths to solve a problem			
	6	Solution shows some stages of working when finding your answer			

Unit 14 GCSE 9-1: Multiplicative Reasoning (Foundation)					
Secure (S)	1	Convert between metric speed measures.			
	2	Use formulae to calculate speed and acceleration.			
	3	Solve growth and decay problems (including compound interest)			
	4	Use inverse proportions.			
	5	Able to use and combine different areas of maths to solve problems			
	6	Solutions are complete and justified with step-by-step working			
Developing (D)	1	Calculate a percentage profit or loss.			
	2	Find the original amount given the final amount as a percentage (reverse percentage).			
	3	Solve compound interest and depreciation problems.			
	4	Calculate with compound measures (speed, density, pressure).			
	5	Use ratio and proportion in measures and proportions.			
	6	Extract and use key information to solve a worded problem			
	7	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	Calculate a percentage of a given number.			
	2	Calculate a given number as a percentage of another.			
	3	Use a calculator to work out percentages.			
	4	Calculate average speed, distance and time.			
	5	Choose the correct maths to solve a problem			
	6	Solution shows some stages of working when finding your answer			

Unit 15: Constructions and Loci (Foundation)					
Secure (S)	1	Use angles at parallel lines to work out bearings			
	2	Solve problems involving bearings and scale factor			
	3	Identify SSS, ASA, RHS, SAS triangles and use to describe congruence			
	4	Construct a regular polygon inside a circle			
	5	Draw loci for the path of points that follow a given rule			
	6	Identify regions bounded by loci to solve practical problems			
	7	Able to use and combine different areas of maths to solve problems			
	8	Solutions are complete and justified with step-by-step working			
Developing (D)	1	Identify and sketch planes of symmetry on 3D shapes			
	2	Sketch 3D shapes from their plans and elevations			
	3	Use scales on maps and diagrams to work out lengths and distances			
	4	Draw lengths and distances correctly on given scale drawings			
	5	Find and use three-figure bearings			
	6	Make accurate drawings of triangles with ruler, compass and protractor			
	7	Bisect angles and lines using ruler and compass			
	8	Extract and use key information to solve a worded problem			
	9	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	Recognise 3D shapes and their properties			
	2	Describe 3D shapes using correct mathematical terminology			
	3	Draw plans and elevations of 3D shapes			
	4	Measure lengths and angles accurately			
	5	Understand congruent			
	6	Recognise nets and make accurate drawings of nets of common 3D objects.			
	7	Choose the correct maths to solve a problem			
	8	Solution shows some stages of working when finding your answer			

Unit 16: Quadratic Equations and Graphs (Foundation)					
Secure (S)	1	realise that $(X+3)$ squared means $(x-3)(x-3)$ and multiply out with a grid			
	2	factorise quadratic expressions that start with a number in front of x squared			
	3	solve a quadratic equation remembering the pos and neg square root, leaving answer as a surd			
	4	solve more complex quadratic equations by factorising			
	5	Able to use and combine different areas of maths to solve problems			
	6	Solutions are complete and justified with step-by-step working			
Developing (D)	1	multiply out a pair of brackets like $(2x+5)(3x-7)$ with a grid			
	2	use a drawn graph to solve quadratic equations			
	3	identify roots, intercepts and turning points of quadratic graphs			
	4	factorise quadratic expressions that start x squared			
	5	factorise a quadratic by difference of 2 squares			
	6	solve quadratic equations by factorising			
	7	Extract and use key information to solve a worded problem			
	8	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	recognise a linear and quadratic graph			
	2	multiply out a pair of brackets like $(x+2)(x-3)$ with a grid			
	3	recognise a quadratic expression			
	4	draw a quadratic graph			
	5	Choose the correct maths to solve a problem			
	6	Solution shows some stages of working when finding your answer			

Unit 17: Perimeter, Area and Volume (Foundation)					
Secure (S)	1	Solve problems involving areas and perimeters of 2D shapes			
	2	Solve problems involving sectors of circles			
	3	Work out the volume and surface areas of cones			
	4	Work out the volume and surface areas of pyramids			
	5	Work out the volume and surface areas of spheres			
	6	Work out the volume and surface area of composite solids			
	7	Able to use and combine different areas of maths to solve problems			
	8	Solutions are complete and justified with step-by-step working			
Developing (D)	1	Solve reverse problems for circumference and area of a circle			
	2	Give answers to circle geometry problems in terms of π			
	3	Work out areas of semicircles and quarter circle and perimeters			
	4	Work out the volume of cylinders			
	5	Work out the surface area of cylinders			
	7	Extract and use key information to solve a worded problem			
	8	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	Names parts of a circle			
	2	Calculate the circumference of a circle			
	3	Calculate the area of a circle			
	4	Work out the volume of a cuboid/cube			
	5	Work out the surface area of a cuboid/cube			
	6	Choose the correct maths to solve a problem			
	7	Solution shows some stages of working when finding your answer			

Unit 18: Fractions, Indices and Standard Form (Foundation)					
Secure (S)	1	Solve problems involving multiplying and dividing mixed numbers and fractions			
	2	Use negative indices to represent reciprocals			
	3	Evaluate and use index laws			
	4	Multiply and divide numbers in standard form without a calculator			
	5	Add and subtract numbers in standard form			
	6	Able to use and combine different areas of maths to solve problems			
	7	Solutions are complete and justified with step-by-step working			
Developing (D)	1	Multiply mixed number fractions			
	2	Divide mixed number fractions			
	3	Remember the index laws			
	4	Write small numbers in standard form			
	5	Multiply and divide numbers in standard form with a calculator			
	6	Convert numbers from standard form with negative powers to ordinary numbers			
	7	Extract and use key information to solve a worded problem			
	8	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	Multiply fractions			
	2	Divide fractions			
	3	Express numbers in index form e.g. 3^4			
	4	Write large numbers in standard form			
	5	Convert large numbers from standard form into ordinary numbers			
	6	Choose the correct maths to solve a problem			
	7	Solution shows some stages of working when finding your answer			

Unit 19: Similarity and Enlargement (Foundation)					
Secure (S)	1	Understand the similarity of regular shapes			
	2	Calculate perimeters of similar shapes			
	3	Add and subtract vectors			
	4	Find the magnitude of a vector			
	5	Find multiples of a vector			
	6	Solve problems with a combination of vectors			
	7	Construct proofs of congruency			
	8	Construct proofs of similarity			
	9	Able to use and combine different areas of maths to solve problems			
	10	Solutions are complete and justified with step-by-step working			
Developing (D)	1	Use similarity to find missing lengths			
	2	Use similarity to solve angle problems			
	3	Use congruence to workout unknown angles			
	4	Use congruence to workout unknown lengths			
	5	Draw a vector diagram			
	6	Extract and use key information to solve a worded problem			
	7	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	Recognise similar shapes			
	2	Calculate the scale factor of enlargement			
	3	Recognise congruent shapes			
	4	Describe a vector from a column vector			
	5	Choose the correct maths to solve a problem			
	6	Solution shows some stages of working when finding your answer			

Unit 20: More Algebra (Foundation)					
Secure (S)	1	Plot a reciprocal graph			
	2	Plot a cubic graph			
	3	Interpret a plotted graph			
	4	Solve simultaneous equations algebraically			
	5	Solve simultaneous equations from a written problem			
	6	Write simultaneous equations from a worded problem			
	7	Change the subject of a formula			
	8	Able to use and combine different areas of maths to solve problems			
	9	Solutions are complete and justified with step-by-step working			
Developing (D)	1	Complete coordinate table for a quadratic graph			
	2	Plot a quadratic graph			
	3	Complete a coordinate table for a reciprocal graph			
	4	Complete a coordinate table for a cubic graph			
	5	Write equations from a worded problem			
	6	Solve simultaneous equations by graphing linear equations			
	7	Extract and use key information to solve a worded problem			
	8	Solution shows some ordered and logical stages of working when finding your answer			
Foundation (F)	1	Identify expressions and equations			
	2	Identify formulae's and identities			
	3	Recognise different types of graphs e.g. quadratic, linear, cubic, reciprocal			
	4	Choose the correct maths to solve a problem			
	5	Solution shows some stages of working when finding your answer			