Content Mapping: Legacy GCSE Mathematics C (J517) Modules to GCSE Mathematics A (J562)

GCSE Mathematics A

OCR GCSE in Mathematics A: J562

This mapping document is designed to accompany the OCR GCSE Mathematics A specification J562 (for teaching from September 2010), for teachers currently using GCSE Mathematics C (J517) – Graduated Assessment.

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Introduction

This document is to assist teachers using the Mathematics C (Graduated Assessment) specification in making the transition to the new Mathematics A specification J562, for first teaching from September 2010.

OCR envisages that this document will be most useful to teachers when planning to use the new Mathematics A specification. It will help you to see how the content of the Module Tests fits into the three units of the new specification, and where the relevant statements can be found.

Content for the ten Module Tests is listed as it appears in the J517 legacy specification, with the best-fit statements for the new Mathematics A specification written in two columns on the right-hand side. One column is for the Foundation tier and the other for Higher.

How to use this document – an example

- Module Test M6 statement A6.1 is "Manipulate algebraic expressions by multiplying a single term over a bracket and by taking out single term common factors."

- The "best-fit" Foundation tier reference given for Mathematics A is A8.1 (C6.1). The first part of this reference tells you to look in the Mathematics A specification at Foundation unit A, section 8.1.

- This section includes the statement "Manipulate algebraic expressions by collecting like terms, by multiplying a single term over a bracket, and by taking out common factors."

    - It is worth noting that Module Test M5 reference A5.3 is the statement in Graduated Assessment that involves collecting like terms, so that statement also references A8.1 in Mathematics A.

- The second part of the reference, in brackets, is for unit C section 6.1 and is the same statement as that in unit A.

Reverse mapping

A further document lists the content for Mathematics A, where each statement in the specification has the relevant "best-fit" statements from the J517 Module Tests listed next to it. The reverse mapping will be more useful to teachers as the specification is being taught, since it will give you an indication of the different levels of demand within each statement in Mathematics A. Further details of how to use it can be found in the document itself.

Legacy Module M1 content mapping

B271		J562 references	
	Number	**Foundation**	**Higher**
N1.1	Write and order whole numbers up to 10 000; round numbers to the nearest 10 or 100.	A2.2 (B3.2)	A2.2 (B3.2)
N1.2	Identify odd and even numbers; recognise numbers divisible by five and ten.	A5.1	A5.1
N1.3	Add and subtract two-digit numbers; multiply and divide using multiplication facts to 10 × 10, without the use of a calculator.	B2.1	B2.1
N1.4	Solve addition, subtraction, multiplication and division problems involving whole numbers or money; interpret the calculator display.	A2.1	A2.1
N1.5	Identify ½, ¼, ¾ of a shape; find ½, ¼, ¾ of a given quantity.	B3.1	B3.1
N1.6	Work out finishing times and intervals (up to one hour) for times given in multiples of five minutes, without the use of a calculator.	C4.4	C5.4
	Algebra		
A1.1	Continue simple sequences; explain how to find the next number in a simple pattern.	A7.2	A7.2
A1.2	Understand the use of symbols to represent unknowns; use simple function machines to deal with inputs and outputs, recognising basic inverse functions.	A8.2	A8.2
A1.3	Use coordinates in the first quadrant.	A6.3 (B5.3)	A6.3 (B5.3)
	Shape		
S1.1	Use metres, centimetres and millimetres and convert measurements from one to another.	A9.1 (B8.1)	A9.1 (B8.1)
S1.2	Read scales graduated in 2, 5, 10, 20, 25, 100, 0·1; read the time from analogue clocks.	A9.1 (B8.1)	A9.1 (B8.1)
S1.3	Measure and draw lines to the nearest millimetre; find the perimeter of simple straight-sided shapes.	A10.1 (C9.1)	A10.1 (C10.1)

		Foundation	Higher
	Shape (continued)		
S1.4	Find areas of simple shapes (including irregular shapes) by counting squares, and volumes of simple shapes by counting cubes.	C9.1	C10.1
S1.5	Recognise regular polygons (pentagon, hexagon, octagon); recognise the terms circle, centre, radius, diameter and circumference and follow instructions to construct inscribed regular polygons.	A10.1 B9.2	A10.1 B9.2
S1.6	Draw and recognise simple enlargements on grids.	B1.6 (C9.3)	B1.6 (C10.3)
S1.7	Understand and use the compass directions N, S, E, W, NE, NW, SE, SW.	A11.1	A11.1
	Data		
D1.1	Understand and use the vocabulary of probability, including terms such as ‘fair’, ‘evens’, ‘certain’, ‘likely’, ‘unlikely’ and ‘impossible’.	C10.1	C12.1
D1.2	Find all possible ways of listing up to **four** objects.	C10.1	C12.1
D1.3	Draw and interpret simple graphs and pictograms.	A13.3, 13.4 A14.3,14.4	A13.3, 13.4 A14.3, 14.4

Legacy Module M2 content mapping

B272		J562 references	
	Number	**Foundation**	**Higher**
N2.1	Order positive and negative temperatures; solve problems involving temperature changes.	A2.1	A2.1
N2.2	Solve addition and subtraction problems using numbers with up to two decimal places in the context of measurement or money, without the use of a calculator.	B2.1	B2.1
N2.3	Solve multiplication and division problems involving multiplication of up to a two-digit number by a one-digit number, without the use of a calculator.	B2.1	B2.1
N2.4	Solve division problems, interpreting the result.	A2.1	A2.1
N2.5	Convert ½ and ¼ to and from percentage form and calculate 25%, 50% of simple quantities, including money; read and estimate percentages from percentage scales and scaled pie charts.	B3.5 B3.6	B3.5 B3.6
N2.6	Calculate a fraction of a given quantity. Express one quantity as a fraction or percentage of another. Use the four operations with fractions; order fractions using a common denominator.	B2.6	B2.6
	Algebra		
A2.1	Recognise and describe patterns in number.	A7.2	A7.2
A2.2	Use word formulae in context; substitute positive integers into the formula to find the value of the subject.	A7.1	A7.1
	Shape		
S2.1	Estimate lengths and angles by comparison.	A9.1 B9.1	A9.1 B9.1
S2.2	Use kilograms and grams and convert measurements from one unit to another.	A9.1 (B8.1)	A9.1 (B8.1)
S2.3	Measure and draw angles to the nearest degree; distinguish between acute, obtuse, reflex and right angles.	A10.1 B9.1	A10.1 B9.1
S2.4	Recognise simple solids and their nets.	C9.2	C10.2
S2.5	Recognise and complete reflection symmetry of 2-D shapes.	B10.2	B10.2
S2.6	Use and interpret street plans (including simple grid references, left and right, clockwise and anticlockwise, and compass directions).	A11.1	A11.1

		Foundation	Higher
	Data		
D2.1	Understand and use the probability scale.	C10.1	C12.1
D2.2	Find the mode and median value of a small set of discrete data.	A13.3	A14.3
D2.3	Extract and use information from common two-way tables including timetables.	A13.2	A14.2

Legacy Module M3 content mapping

B273		J562 references	
	Number	**Foundation**	**Higher**
N3.1	Use the terms square, positive square root; recall the squares of 2 to 12; use index notation for squares; use a calculator to find squares and square roots.	B4.1 B4.2	B4.1 B4.2
N3.2	Multiply and divide numbers with no more than **one** decimal digit by an integer between 1 and 10 without the use of a calculator.	B2.1	B2.1
N3.3	Multiply and divide any number (with up to two decimal places) by powers of ten without the use of a calculator.	B2.1	B2.1
N3.4	Calculate a fraction of a given quantity.	B3.4	B3.4
N3.5	Calculate simple percentages (10%, 20%, 30%, 5%, 15%) of quantities without the use of a calculator.	(B3.6)	(B3.6)
N3.6	Work out starting times, finishing times and intervals without the use of a calculator.	C4.4	C5.4
N3.7	Perform calculations involving the use of brackets and the hierarchy of operations.	A3.1	A3.1
	Algebra		
A3.1	Solve simple equations involving one operation.	A8.2	A8.2
A3.2	In context, use formulae expressed in words or symbols; substitute positive numbers into the formula to find the value of the subject.	A7.1	A7.1
A3.3	Construct and interpret simple graphs, including conversion graphs.	B6.1	B6.1
	Shape		
S3.1	Make sensible estimates of a range of measures in everyday settings.	A9.1	A9.1
S3.2	Use litres and millilitres and convert measurements from one unit to another; interpret scales on a range of measuring instruments.	A9.1 (B8.1)	A9.1 (B8.1)
S3.3	Use 2-D representations of 3-D shapes including views and isometric drawings.	C9.2	C10.2
S3.4	Construct and interpret scale drawings using simple scale factors.	A11.1	A11.1
S3.5	Understand and use positive integer scale factors for enlargements on a grid.	B10.2 (C9.3)	B10.2 (C10.3)

		Foundation	Higher
	Data		
D3.1	Understand and use measures of probability from equally likely outcomes.	C10.1	C12.1
D3.2	Calculate the mean and the range of discrete data.	A13.3	A14.3
D3.3	Draw and interpret simple frequency tables, charts and bar charts for discrete data.	A13.3 A13.4	A14.3 A14.4

Legacy Module M4 content mapping

B274		J562 references	
	Number	**Foundation**	**Higher**
N4.1	Solve problems involving all four operations on decimal numbers with up to three decimal places using a calculator, where the operation has to be determined.	A2.1	A2.1
N4.2	Use decimal notation and recognise that each terminating decimal is a fraction; order decimals; convert simple fractions of a whole to percentages of the whole and vice versa.	B3.2 B3.4	B3.2 B3.4
N4.3	Use written methods to multiply and divide a three-digit number by a two-digit number; add, subtract and multiply numbers with up to two decimal places.	B2.1	B2.1
N4.4	Understand the concepts and vocabulary of factor (divisor), multiple and common factor and prime number.	A5.1	A5.1
N4.5	Solve simple ratio and proportion problems particularly in the context of recipes.	A4.2	A4.2
N4.6	Solve problems using a range of skills including simple trial and improvement.	C6.2	C7.2
	Algebra		
A4.1	Derive a simple formula.	A7.1	A7.1
A4.2	Continue and explain patterns in number and spatial arrangements; generate terms of a sequence using term-to-term and position-to-term definitions of the sequence.	A7.2	A7.2
A4.3	Interpret information presented in a range of linear and non-linear graphs, including travel (distance/time) graphs; calculate speed in simple cases.	B6.1 C7.1	B6.1 C8.1
	Shape		
S4.1	Know rough metric equivalents of pounds, feet, miles, pints and gallons.	A9.1	A9.1
S4.2	Recall and use properties of angles at a point, angles on a straight line, perpendicular lines and opposite angles at a vertex; use angle properties of equilateral, isosceles and right-angled triangles.	B9.1 B9.2	B9.1 B9.2
S4.3	Find the area of a rectangle.	C9.1	C10.1
S4.4	Use axes and coordinates to specify or locate points in all four quadrants; find the coordinates of points identified by geometrical information.	A6.3 (B5.3)	A6.3 (B5.3)

		Foundation	Higher
	Shape (continued)		
S4.5	Understand that reflections are specified by a mirror line; transform triangles and other 2-D shapes by reflection, using a line parallel to an axis.	B10.2	B10.2
S4.6	Recognise and visualise rotation symmetry of 2-D shapes; identify the order of rotation symmetry.	B10.2	B10.2
	Data		
D4.1	Understand and use estimates and measures of probability.	C10.1	C12.1
D4.2	Use the range and measures of average for discrete data.	A13.3 A13.4	A14.3 A14.4
D4.3	Interpret graphs representing real data, including recognising misleading diagrams.	A13.4 (B11.1)	A14.4 (B12.1)

Legacy Module M5 content mapping

B275		J562 references	
	Number	**Foundation**	**Higher**
N5.1	Round numbers to the nearest integer, to a given power of ten, to one significant figure and to one or two decimal places; estimate answers to one-stage calculations including problems involving money and measurement.	A2.2 B2.2	A2.2 B2.2
N5.2	Use the term cube; recall the cubes of 2, 3, 4, 5, and 10; use index notation for simple integer powers.	B4.1 B4.2	B4.1 B4.2
N5.3	Understand equivalent fractions, simplifying a fraction (including mixed numbers) by cancelling all common factors; multiply a fraction by an integer or a unit fraction.	B3.1 B3.3	B3.1 B3.3
N5.4	Use the equivalence between fractions, decimals and percentages in context; solve simple percentage problems including increase and decrease.	B3.5 B3.6 C4.2	B3.5 B3.6 C5.2
N5.5	Express one quantity as a fraction or percentage of another.	B3.1 C4.2	B3.1 C5.2
N5.6	Use the four operations with positive and negative integers.	A2.1	A2.1
	Algebra		
A5.1	Solve problems involving substitution of positive numbers into simple algebraic formulas.	A5.1	A5.1
A5.2	Solve simple linear equations in which the unknown appears on either side of the equation.	A8.2	A8.2
A5.3	Manipulate algebraic expressions by collecting like terms.	A8.1 (C6.1)	A8.1 (C7.1)
A5.4	Use tables to plot graphs of linear functions given explicitly.	B6.3	B6.3

		Foundation	Higher
	Shape		
S5.1	Construct triangles using a ruler and protractor only given information about their sides and angles; use a straight edge and compasses to construct triangles with given sides including equilateral triangles.	A10.1	A10.1
S5.2	Use and interpret maps and scale drawings, including four-figure grid references and estimating distances and areas; use bearings to specify direction.	A11.1	A11.1
S5.3	Classify quadrilaterals by their geometric properties.	B9.2	B9.2
S5.4	Explore the geometry of cuboids (including cubes) and shapes made from cuboids; find the volumes of cuboids, recalling the formula; draw and interpret the net of a cuboid.	C9.1 C9.2	C10.1 C10.2
S5.5	Understand that rotations are specified by a centre and an angle; complete the rotation symmetry of 2-D shapes; measure the angle of rotation using right angles and simple fractions of a turn.	B10.2	B10.2
	Data		
D5.1	List all outcomes for single events, and for two successive events, in a systematic way; find probabilities. Use the fact that the probability of not happening is 1 – probability of happening.	C10.1	C12.1
D5.2	Use and interpret the statistical measures mode, median, mean and range for discrete and continuous data, including comparing distributions.	A13.3 A13.4	A14.3 A14.4
D5.3	Construct and interpret pie charts.	A13.3 A13.4	A14.3 A14.4

Legacy Module M6 content mapping

B276		J562 references	
	Number	**Foundation**	**Higher**
N6.1	Use a calculator effectively and efficiently, including using the memory and bracket keys, and function keys for reciprocals, squares and powers; enter a range of measures including 'time'; interpret the display; round off a final answer to a reasonable degree of accuracy.	A2.3	A2.3
N6.2	Use ratio notation, including reduction to its simplest form; solve word problems involving ratio and proportion.	A4.1 A4.2	A4.1 A4.2
N6.3	Solve problems involving the four operations on decimals without the use of a calculator; convert a simple fraction to a decimal using division.	B2.1 B3.1	B2.1 B3.1
N6.4	Use the four operations with fractions; order fractions using a common denominator.	B3.1 B3.2	B3.1 B3.2
N6.5	Perform calculations using the hierarchy of operations.	A3.1	A3.1
	Algebra		
A6.1	Manipulate algebraic expressions by multiplying a single term over a bracket and by taking out single term common factors.	A8.1 (C6.1)	A8.1 (C7.1)
A6.2	Solve linear equations with integer coefficients in which the unknown appears on both sides of the equation, or with brackets.	A8.2	A8.2
A6.3	Use index notation for simple positive integer powers; substitute positive and negative numbers into expressions such as $4x - 2$, $3x^2 + 4$ and $2x^3$.	A7.1 C2.4	A7.1 C2.4
A6.4	Plot graphs of linear functions in which y is given explicitly or implicitly in terms of x.	B6.3	B6.3
A6.5	Draw and interpret graphs modelling real situations.	B6.1 C7.1	B6.1 C8.1

		Foundation	Higher
	Shape		
S6.1	Use parallel lines, alternate angles and corresponding angles; calculate and use the sums of the interior and exterior angles of quadrilaterals, pentagons and hexagons; calculate and use the angles of regular polygons; understand simple proofs involving triangles and quadrilaterals.	B9.1 B9.2 B9.3	B9.1 B9.2 B9.3
S6.2	Recall the meaning of circle, chord, tangent, arc, sector, segment; find circumferences and areas enclosed by circles, recalling relevant formulae.	B9.2 (terms only) C9.1	B9.2 (terms only) C10.1
S6.3	Construct triangles and other 2-D shapes using a ruler and a protractor, given information about their sides and angles; construct inscribed regular polygons; construct nets of cubes, regular tetrahedra, square-based pyramids and other 3-D shapes.	A10.1 B9.2 (polygons only) C9.2 (nets)	A10.1 B9.2 (polygons only) C10.2 (nets)
S6.4	Recall and use the formula for the area of a parallelogram and a triangle; use the formula for the area of a trapezium; calculate perimeters and areas of shapes made from triangles and rectangles; find the surface area of simple shapes using the area formulae for triangles and rectangles.	C9.1	C10.1
S6.5	Calculate volumes of shapes made from cubes and cuboids.	C9.1	C10.1
S6.6	Analyse 3-D shapes through 2-D projections and cross-sections, including plans and elevations.	C9.2	C10.2
S6.7	Recognise, visualise and construct enlargements of objects using positive integer and fractional scale factors; identify the centre and the scale factor of enlargement; understand the implications of enlargement for perimeter.	B10.2 C9.3	B10.2 C10.3
S6.8	Transform triangles and other 2-D shapes by rotation or reflection or translation using vectors; recognise and visualise rotations, reflections and translations including reflection symmetry of 3-D shapes; understand the properties preserved by these transformations; understand congruence in the context of transformations.	B10.2	B10.2

		Foundation	Higher
	Data		
D6.1	Identify different mutually-exclusive outcomes and know that the sum of the probabilities of all these outcomes is one.	C10.1	C12.1
D6.2	Draw and interpret scatter graphs including using lines of best fit; have a basic understanding of correlation, identifying ‘correlation’ or ‘no correlation’.	B11.1	B12.1
D6.3	Use and interpret diagrams for discrete and continuous data, including frequency polygons and stem and leaf diagrams; identify the modal class; calculate the mean of grouped discrete data compare distributions and make inferences, using the shapes of the distributions and measures of average and range.	A13.3 A13.4	A14.3 A14.4

Legacy Module M7 content mapping

B277		J562 references	
	Number	**Foundation**	**Higher**
N7.1	Use and understand terminating and recurring decimals including exact fraction equivalents; solve problems involving multiplication and division by decimals with up to two decimal places.	B2.1 B3.4	B2.1 B3.4
N7.2	Use the terms cube root, negative square root; recall the squares to 15^2 and the corresponding square roots; recall the cubes of 2, 3, 4, 5, and 10; use index laws with numerical and algebraic expressions involving multiplication and division of positive integer powers.	B4.1 B4.2	B4.1 B4.2
N7.3	Check solutions to calculations using various methods including approximating, using inverse operations and recognising the effect of multiplying and dividing by numbers less than one and greater than one; estimate answers using appropriate techniques.	B2.2 C4.4	B2.2 C5.4
N7.4	Understand and use ratios in appropriate contexts including dividing a quantity in a given ratio.	A4.2	A4.2
N7.5	Calculate an unknown quantity from quantities that vary in direct proportion.	C4.3	C5.3
N7.6	Use percentages to compare proportion; solve percentage problems involving increase and decrease including using a multiplier.	B3.5 B3.6 C4.2	B3.5 B3.6 C5.2
N7.7	Use and understand the terms reciprocal, highest common factor, lowest common multiple, prime number; find the prime number decomposition of positive integers.	A5.1 B3.1 (i)	A5.1 B3.1 (i)
	Algebra		
A7.1	Use and generate formulae in context; substitute positive and negative numbers into a formula.	A7.1	A7.1
A7.2	Form and solve equations.	A8.2	A8.2
A7.3	Change the subject of a formula in cases where the subject only appears once.	A7.1	A7.1
A7.4	Expand the product of two linear expressions.		C7.1
A7.5	Generate points and plot graphs of quadratic functions; find approximate solutions to a quadratic equation from the graph of the corresponding quadratic function.	C7.2	C8.2
A7.6	Form and solve simple linear inequalities in one variable and represent the solution set on a number line.	B7.1	B7.1
A7.7	Use trial and improvement to find approximate solutions of equations.	C6.2	C7.2

		Foundation	Higher
	Algebra (continued)		
A7.8	Generate common integer sequences; use and justify linear expressions to describe the *n*th term of an arithmetic sequence.	A7.3	A7.3
	Shape		
S7.1	Know that measurements using real numbers depend on the choice of unit; recognise that a measurement given to the nearest whole unit may be inaccurate by up to one half in either direction.	C3.1 C8.1	C4.1 C9.1
S7.2	Solve angle problems involving intersecting and parallel lines, and polygons; (understand that the tangent at any point on a circle is perpendicular to the radius at that point).	B9.1	B9.1
S7.3	Understand, recall and use Pythagoras' theorem.	A12.1	A13.1
S7.4	Solve problems involving area and circumference of circles; use pi in exact calculations.	C9.1	C10.1
S7.5	Solve problems involving the surface area and volume of prisms, including cylinders; convert between area measures and volume measures.	C8.1 C9.1	C9.1 C10.1
S7.6	Understand and use 3-D coordinates; find the coordinates of the midpoint of a line segment AB given points AB in 2-D.	A6.3 (B5.3) C5.3	A6.3 (B 5.3) C5.3
S7.7	Apply loci to spatial problems involving shapes and paths; use straight edge and compasses to produce standard constructions including the midpoint and perpendicular bisector of a line segment, the perpendicular from a point to a line, and the bisector of an angle.	A10.2 A10.3	A10.2 A10.3
S7.8	Understand and use rates and compound measures, including speed and density.	C4.4 C8.1	C5.4 C9.1
	Data		
D7.1	Solve probability problems involving theoretical models or relative frequency.	C10.1	C12.1
D7.2	Calculate the mean from grouped continuous data.	A13.3	A14.3
D7.3	Interpret scatter graphs for discrete and continuous variables, including using lines of best fit; understand the vocabulary of correlation, including positive, negative and zero correlation.	B11.1	B12.1

Legacy Module M8 content mapping

B278		J562 references	
	Number	**Foundation**	**Higher**
N8.1	Solve efficiently problems involving percentage increase and decrease; calculate the original amount when given the transformed amount after a percentage change.		C5.2
N8.2	Solve problems involving repeated proportional or percentage changes, including compound interest; represent repeated proportional change using a multiplier raised to a power.		C5.2
N8.3	Use standard index form expressed in conventional notation and on a calculator display; convert between ordinary and standard index form representations; calculate with standard index form; check solutions by converting to standard index form.		C3.1
N8.4	Perform calculations on fractions including the multiplication and division of mixed numbers.	B3.1	B3.1
	Algebra		
A8.1	Use and generate formulae; change the subject of a formula, including simple cases where the subject appears twice or where a power of the subject appears.		A7.1
A8.2	Multiply expressions of the form $(x + 3)(x – 7)$ and simplify the resulting expression; solve quadratic equations of the form x^2 +/– … by factorisation, including the difference of two squares.		C7.1 C7.3
A8.3	Solve harder linear equations including those with fractional coefficients.		
A8.4	Find the exact solution of two simultaneous equations in two unknowns by eliminating a variable, and interpret the equations as lines and their common solution as the point of intersection.	B6.2 (graphical only)	B6.2 (graphical and algebraic)
A8.5	Plot graphs of simple cubic functions and the reciprocal function $y = 1/x$ with $x \neq 0$; recognise the characteristic shapes of these functions.		C8.4
A8.6	Solve linear inequalities in one variable; solve several linear inequalities in two variables and find the solution set.		B7.1
A8.7	Find the gradient of straight lines given by equations of the form $y = mx + c$: understand that $y = mx + c$ represents a straight line, interpret the values of m and c; know when lines are parallel.	B6.3 (gradient only)	B6.3 B6.4

		Foundation	Higher
	Shape		
S8.1	Understand the difference between the formulae for perimeter, area and volume by considering dimensions.		Deleted
S8.2	Transform triangles and other 2-D shapes by combinations of reflection, rotation (of any angle about any point) and translation, including the use of vector notation; construct enlargements using any scale factors; identify scale factors.	B10.2	B10.2
S8.3	Understand, recall and use trigonometrical relationships in right-angled triangles and use these to solve problems, including those involving bearings.		A12.1
S8.4	Understand similarity of triangles and other plane figures and use this to make geometrical inferences.	C9.3	C10.3
	Data		
D8.1	Use tree diagrams to represent outcomes of combined events, recognising when events are independent; find probabilities.		C12.1
D8.2	Draw and interpret cumulative frequency tables and diagrams and box plots for grouped data; find the median, quartiles, percentiles and interquartile range.		A14.3 A14.4
D8.3	Compare distributions and make inferences, using the shapes of the distributions and measures of average and spread, including median and quartiles.		A14.4
D8.4	Calculate an appropriate moving average.		Deleted

Legacy Module M9 content mapping

B279		J562 references	
	Number	**Foundation**	**Higher**
N9.1	Use calculators or written methods to calculate the upper and lower bounds of calculations, particularly in the context of measurement.		C4.1
N9.2	Check the order of magnitude of a compound calculation using estimation methods, including rounding numbers of any size to one significant figure and simplifying calculations using standard index form, without the use of a calculator.		B2.1
N9.3	Use fractional, negative and zero powers in simplifying numerical expressions, including using inverse operations.		B4.2
	Algebra		
A9.1	Rearrange harder formulae, including cases where the subject appears twice, or where a power of the subject appears.		A7.1
A9.2	Form and use equations to solve word and other problems involving direct or inverse proportion (for example, $y \propto x$, $y \propto x^2$, $y \propto 1/x$, $y \propto 1/x^2$) including relating algebraic solutions to graphical representations of the equations.		C5.3
A9.3	Manipulate algebraic expressions by expanding the product of two linear expressions, by taking out common factors and by cancelling common factors in rational expressions; factorise quadratic expressions, including the difference of two squares; solve quadratic equations of the form $ax^2 + bx + c = 0$ by factorisation.		C7.3 C7.3
A9.4	Find gradients of straight lines perpendicular to each other and write equations of straight lines in the form $y = mx + c$.		B6.4
	Shape		
S9.1	Use and prove angle and tangent properties of circles, including the alternate segment theorem.		B9.4
S9.2	Use Pythagoras' theorem and trigonometrical relationships in 3-D contexts, including using 3-D coordinates and finding the angles between a line and a plane; use Pythagoras' theorem to find the length AB given the points A and B in 2-D.		A13.1 C11.1
S9.3	Solve problems involving the lengths of arcs, areas of sectors and the volume of pyramids, cones and spheres.		C10.1 C10.2

		Foundation	Higher
	Shape (continued)		
S9.4	Understand and use the effect of enlargement on length, area and volume of shapes and solids, including the use of negative scale factors.		C10.3
	Data		
D9.1	Solve structured problems involving the addition or multiplication of two probabilities.		C12.1
D9.2	Draw and interpret histograms for grouped data; understand frequency density.		A14.3 A14.4
D9.3	Select a representative sample from a population using random and stratified sampling; criticize sampling methods.		A14.1

Legacy Module M10 content mapping

B280		J562 references	
	Number	**Foundation**	**Higher**
N10.1	Use calculators to explore exponential growth and decay.		C5.5
N10.2	Convert a recurring decimal to a fraction and vice versa; use prime factors to identify fractions which represent terminating decimals; simplify expressions involving powers or surds including rationalising a denominator.		B3.4, 4.3
	Algebra		
A10.1	Manipulate algebraic expressions including fractions; solve related equations.		C7.1
A10.2	Solve quadratic equations by completing the square and using the quadratic formula.		C7.3
A10.3	Solve exactly, by elimination of an unknown, two simultaneous equations in two unknowns, one of which is linear, the other equation quadratic in one unknown ~~or of the form $x^2 + y^2 = r^2$~~.		C7.3 Not circle
A10.4	Apply to the graph of $y = f(x)$ the transformations $y = f(x) + a$, $y = f(ax)$, $y = f(x + a)$, $y = af(x)$, for linear, quadratic, sine and cosine functions $f(x)$.		C8.5
A10.5	Construct graphs of exponential functions, ~~and of the circle $x^2 + y^2 = r^2$~~; solve problems involving the intersection of straight lines with a curve ~~(including a circle)~~.		C8.3 Not circle
	Shape		
S10.1	Solve problems involving surface areas and volumes of pyramids, cylinders, cones and spheres, and problems involving more complex shapes including segments of circles and frustums of cones.		C10.1,10.2
S10.2	Understand and use SSS, SAS, ASA and RHS condition to prove the congruence of triangles; verify standard ruler and compass constructions; use congruence to show that translations, reflections and rotations preserve length and angle.		Deleted
S10.3	Calculate the area of a triangle using ½absinC; use the sine and cosine rules to solve 2-D and 3-D problems.		C11.1
S10.4	Draw, sketch and describe the graphs of trigonometric functions for angles of any size, including transformations involving scalings in either or both the x and y directions.		C8.4

		Foundation	Higher
	Shape (continued)		
S10.5	Understand and use vector notation; calculate, and represent graphically the sum of two vectors, the difference of two vectors and a scalar multiple of a vector; calculate the resultant of two vectors; understand and use the commutative and associative properties of vector addition; solve simple geometrical problems in 2-D using vector methods.		B11.1
	Data		
D10.1	Compare data sets (including grouped discrete and continuous data); draw conclusions.		A14.4
D10.2	Identify seasonality and trends in time series, from tables or diagrams; interpret graphs modelling real situations.		A14.4
D10.3	Solve problems involving the addition or multiplication of two probabilities.		C12.1