

# Sparx Maths Curriculum

## Information

The Sparx Maths 5 Year Curriculum is outlined in this document.

The timings given within a term are a guide, enabling teachers to adapt the curriculum to fit their context and classes.

Each unit contains suggested **Teaching topics** which cover the national curriculum and GCSE specification.

**Building blocks** highlight links to prior learning.

**Further topics to explore** are suggestions for teachers who may want to show their classes content that will appear later in the curriculum.

Sparx topic codes are included throughout; codes with an 'M' refer to KS3 topics and codes with a 'U' refer to GCSE topics.

# Y7 Term 1

Term	Block	Unit	Length (weeks)	Topics	Topic Code	Building blocks	Topic Code	Further topics to explore	Topic Code
Y7 Term 1	Number sense and calculations	Number sense	1	Using number lines Integer place value Decimal place value Ordering negative numbers Rounding integers Rounding decimals	M763 M704 M522 M527 M111 M431				
		Adding and subtracting	1	Adding integers Adding decimals Subtracting integers Subtracting decimals	M928 M429 M347 M152	Integer place value Decimal place value	M704 M522		
		Multiplying	1	Multiplying and dividing by 10, 100 and 1000 Multiplying using place value Using a written method to multiply integers Using a written method to multiply decimals	M113 M911 M187 M803	Times tables Integer place value Decimal place value	M704 M522		
		Dividing	1	Dividing numbers into equal groups Using a written method to divide integers Dividing with remainder Using a written method to divide by integers to get a decimal answer Using a written method to divide by decimals	M462 M354 M873 M262 M491	Times tables Integer place value Decimal place value	M704 M522		
		Calculating with negative numbers	1	Adding and subtracting with negative numbers Multiplying and dividing with negative numbers	M106 M288	Times tables Using number lines Ordering negative numbers	M763 M527		
		Order of operations	1.5	Calculating with roots and powers Using the correct order of operations Using the commutative laws Using the associative laws	M135 M521 M952 M409	Times tables Adding Subtracting Multiplying Dividing Calculating with negative numbers	M928, M429 M347, M152 M187, M803 M354, M262 M106, M288		
	Expressions and equations	Expressions	1	Algebraic notation Algebraic terminology Simplifying expressions containing a single variable Simplifying expressions containing multiple variables Simplifying expressions containing non-linear terms	M813 M830 M795 M531 M949	Times tables Using the correct order of operations Using the commutative laws Using the associative laws Calculating with negative numbers	M521 M952 M409 M106, M288		
		Substitution	1	Substituting into expressions with one operation Substituting into expressions with multiple operations Substituting into algebraic formulae Substituting into real-life formulae	M417 M327 M208 M979	Times tables Using the correct order of operations Calculating with negative numbers Algebraic notation	M521 M106, M288 M813		
		Solving equations	1	Solving equations with one step Solving equations of the form $ax+b=c$ Solving equations of the form $x/a+b=c$	M707 M634 M647	Function machines Algebraic notation Substituting into expressions with one operation Using the correct order of operations Calculating with negative numbers	M175, M428 M813 M417, M327 M521 M106, M288	Solving equations of the form $(x+a)b=c$ (Year 8 Term 1) Solving equations with the unknown on both sides (Year 8 Term 1) Constructing and solving equations (Year 8 Term 1)	M401 M554 M957
	Measures	Time	1	Converting units of time Using clocks Calculating with time Using timetables Using calendars	M515 M892 M627 M963 M747				
		Measures	1	Estimating and measuring length, mass and capacity Converting units of length, mass and capacity Using appropriate units	M828 M774 M487	Multiplying and dividing by 10, 100 and 1000 Using number lines	M113 M763		

# Y7 Term 2

Term	Block	Unit	Length (weeks)	Topics	Topic Code	Building blocks	Topic Code	Further topics to explore	Topic Code
Y7 Term 2	2D Shapes	Line and shape properties	1	Line properties Shape properties Symmetry	M814 M276 M523			Properties of 3D shapes (Year 8 Term 2)	M767
	Perimeter and area	Perimeter	1	Finding perimeters using grids Finding the perimeter of rectangles and simple shapes Finding the perimeter of compound shapes	M920 M635 M690	Adding Line properties Shape properties	M928, M429 M814 M276		
		Area	2	Finding areas using grids Finding the area of rectangles Finding the area of compound shapes Finding the area of triangles Finding the area of compound shapes containing triangles	M900 M390 M269 M610 M996	Multiplying Line properties Shape properties	M187, M803 M814 M276	Finding the area of parallelograms (Year 8 Term 2) Finding the area of trapeziums (Year 8 Term 2)	M291 M705
	Coordinates	Coordinates and shapes	1	Reading and plotting coordinates Solving shape problems involving coordinates	M618 M230	Shape properties	M276	Calculating midpoints (Year 8 Term 2)	M622
	Factors, multiples and primes	Factors and multiples	1	Finding the lowest common multiple Finding factors and using divisibility tests Finding the highest common factor	M227 M823 M698	Times tables Dividing numbers into equal groups Using a written method to divide integers	M462 M354		
		Primes	1	Finding prime numbers Prime factor decomposition	M322 M108	Times tables Finding factors and using divisibility tests Dividing numbers into equal groups	M823 M462	Finding the HCF and LCM using prime factor decomposition (Year 8 Term 2)	M365
	Fractions	Writing and comparing fractions	2.5	Finding fractions of shapes Constructing fractions Finding equivalent fractions Simplifying fractions Ordering fractions Converting between mixed numbers and improper fractions	M158 M939 M410 M671 M335 M601	Finding the lowest common multiple Finding the highest common factor	M227 M698	Simplifying algebraic fractions by cancelling common factors (Year 8 Term 1)	M568
		Adding and subtracting fractions	1.5	Adding and subtracting fractions Adding and subtracting mixed numbers	M835 M931	Finding the lowest common multiple Finding the highest common factor Finding equivalent fractions Simplifying fractions Converting between mixed numbers and improper fractions	M227 M698 M410 M671 M601		
Brackets	Single brackets	1	Using the distributive law Expanding single brackets Expanding single brackets and simplifying expressions Factorising into one bracket	M637 M237 M792 M100	Algebraic notation Simplifying expressions containing a single variable Finding the highest common factor	M813 M795 M698	Simplifying algebraic fractions by factorising (Year 8 Term 3) Expanding double brackets (Year 8 Term 3)	M754 M336	

# Y7 Term 3

Term	Block	Unit	Length (weeks)	Topics	Topic Code	Building blocks	Topic Code	Further topics to explore	Topic Code	
Y7 Term 3	Angles	Angles	1	Types of angles Estimating angles Measuring angles Drawing angles	M502 M541 M780 M331					
		Finding unknown angles	1	Angles on a line and about a point Vertically opposite angles Angles in triangles	M818 M163 M351	Types of angles Solving equations with one step Solving equations of the form $ax + b = c$	M502 M707 M634	Angles in quadrilaterals (Year 8 Term 3) Combining angle facts (Year 8 Term 3)	M679 M319	
	Handling data and statistical diagrams	Averages and range	1	Calculating the range Calculating the median Finding the mode Calculating the mean	M328 M934 M841 M940	Place value Adding Subtracting Multiplying Dividing	M763, M704 M928, M429 M347, M152 M187, M803 M354, M262			
		Tables and charts	1	Interpreting frequency tables and two-way tables Drawing and interpreting tally charts Drawing and interpreting pictograms Drawing bar charts Interpreting bar charts	M899 M597 M644 M460 M738			Interpreting frequency tables with grouped data (Year 9 Term 3)	U312	
		Collecting and presenting data	1	Collecting and recording data using tables Finding averages from frequency tables Choosing suitable averages and solving problems	M945 M127 M440	Averages and the range Interpreting frequency tables and two-way tables Drawing and interpreting tally charts Drawing and interpreting pictograms Drawing and interpreting bar charts	M328, M934, M899 M597 M644 M460, M738			
	Proportion	Proportion word problems	1	Solving proportion problems	M478	Using a calculator	M757			
	Fractions, decimals and percentages	Multiplying and dividing fractions	1	Reciprocals Multiplying fractions Dividing fractions Multiplying with mixed numbers Dividing with mixed numbers	M216 M157 M110 M197 M265	Simplifying fractions Converting between mixed numbers and improper fractions	M671 M601			
		Fractions of amounts	1	Fractions of amounts without a calculator Fractions of amounts with a calculator	M695 M684	Multiplying fractions Solving proportion problems	M157 M478			
		Fractions, decimals and percentages	2	Converting between fractions and decimals Converting between fractions, decimals and percentages Ordering fractions, decimals and percentages Writing numbers as percentages of other numbers	M958 M264 M553 M235	Constructing fractions Finding equivalent fractions Simplifying fractions Ordering fractions Converting between mixed numbers and improper fractions	M939 M410 M671 M335 M601	Using recurring decimal notation (Year 8 Term 3) Converting fractions to recurring decimals (Year 8 Term 3)	M701 M922	
	Probability	Theoretical probability	2	Using probability phrases Writing probabilities as fractions Writing probabilities as fractions, decimals and percentages Probabilities of mutually exclusive events Sample space diagrams	M655 M941 M938 M755 M718	Constructing fractions Adding and subtracting fractions Converting between fractions, decimals and percentages Ordering fractions, decimals and percentages Writing numbers as percentages of other numbers	M939 M835 M264 M553 M235			

Term	Block	Unit	Length (weeks)	Topics	Topic Code	Building blocks	Topic Code	Further topics to explore	Topic Code
Y8 Term 1	Percentages	Percentages of amounts	1	Finding percentages of amounts without a calculator Finding percentages of amounts with a calculator	M437 M905	Converting between fractions, decimals and percentages Fractions of amounts without a calculator Fractions of amounts with a calculator	M284 M695 M684		
		Percentage change	1	Percentage change without a calculator Percentage change with a calculator	M476 M533	Finding percentages of amounts without a calculator Finding percentages of amounts with a calculator	M437 M905	Finding original values in percentage calculations (Year 9 Term 1)	U286
	Money	Calculating with money	1	Value for money	M681	Solving proportion problems Adding decimals Subtracting decimals Using a written method to multiply decimals Using a written method to divide by integers to get a decimal answer	M478 M429 M152 M803 M262		
	Indices	Index laws	2	Index rules with positive indices Index rules with negative indices Simplifying expressions using index laws Simplifying algebraic fractions by cancelling common factors	M608 M150 M120 M568	Calculating with roots and powers Simplifying fractions Algebraic notation	M135 M671 M813		
	Equations	Solving equations	2	Solving equations of the form $(x+a)/b=c$ Solving linear equations involving brackets Solving equations with the unknown on both sides Solving equations with the unknown in the denominator Constructing and solving equations	M401 M902 M554 M387 M957	Solving equations with one step Expanding single brackets Solving equations of the form $ax+b=c$ Solving equations of the form $x/a+b=c$ Simplifying expressions containing a single variable Substituting into expressions with multiple operations	M707 M237 M634 M647 M795 M327		
	Sequences	Term-to-term rules	1	Term-to-term rules for numerical sequences Term-to-term rules for sequences of patterns	M381 M241	Using number lines Adding and subtracting with negative numbers Multiplying and dividing with negative numbers	M763 M106 M288		
		Position-to-term rules	1	Substituting into position-to-term rules Position-to-term rules for arithmetic sequences Position-to-term rules for sequences of patterns	M166 M991 M866	Term-to-term rules for numerical sequences Term-to-term rules for sequences of patterns Solving equations of the form $ax+b=c$ Substituting into expressions with multiple operations	M381 M241 M634 M327		
	Ratio	Ratio	2	Writing and simplifying ratios Writing ratios in the form 1:n Converting between ratios, fractions and percentages Using equivalent ratios to find unknown amounts Sharing amounts in a given ratio	M885 M543 M267 M801 M525	Finding the highest common factor Constructing fractions Writing numbers as percentages of other numbers	M698 M939 M235	Combining ratios (Year 10 Term 2)	U921
		Scale diagrams	1	Drawing and interpreting scale diagrams	M112	Writing and simplifying ratios Using equivalent ratios to find unknown amounts Writing ratios in the form 1:n	M885 M801 M543		

# Y8 Term 2

Term	Block	Unit	Length (weeks)	Topics	Topic Code	Building blocks	Topic Code	Further topics to explore	Topic Code
Y8 Term 2	Rounding	Significant figures	1	Rounding integers using significant figures Rounding decimals using significant figures Estimating calculations	M994 M131 M878			Finding error intervals (Year 9 Term 2)	U657
	Coordinates	Coordinates and midpoints	1	Calculating midpoints Mixed problems: Coordinates and midpoints	M622 M311	Reading and plotting coordinates	M618		
	Area	Area and units	1.5	Finding the area of parallelograms Finding the area of trapeziums Converting units of area	M291 M705 M728	Finding the area of rectangles Finding the area of compound shapes Finding the area of triangles Finding the area of compound shapes containing triangles Converting units of length	M390 M269 M610 M996 M772		
	Circles	Area and circumference	1.5	Identifying parts of circles Finding the circumference of circles Finding the area of circles	M595 M169 M231	Calculating with roots and powers Substituting into algebraic formulae Rounding decimals	M135 M208 M431	Finding the arc length of sectors (Year 9 Term 1) Finding the area of sectors (Year 9 Term 1)	U221 U373
	Standard form	Standard form and ordinary numbers	1.5	Using standard form with positive indices Using standard form with negative indices	M719 M678	Multiplying and dividing by 10, 100 and 1000	M113	Multiplying and dividing numbers in standard form (Year 9 Term 1) Adding and subtracting numbers in standard form (Year 9 Term 1) Standard form with a calculator (Year 9 Term 1)	U264 U290 U161
	Venn diagrams	Venn diagrams	1	Venn diagrams Probabilities from Venn diagrams	M829 M419	Writing probabilities as fractions Writing probabilities as fractions, decimals and percentages Probabilities of mutually exclusive events	M941 M938 M755	Venn diagrams with set notation (Year 10 Term 2)	U748
		Factors, multiples and primes	1	Finding the HCF and LCM using prime factor decomposition	M365	Venn diagrams Finding the lowest common multiple Finding factors and using divisibility tests Finding the highest common factor Finding prime numbers Prime factor decomposition	M829 M227 M823 M698 M322 M108		
	3D shapes	Nets	1	Properties of 3D shapes Nets of 3D shapes	M767 M518	Shape properties	M276		
	Surface area and volume	Surface area	1	Finding the surface area from a net Finding the surface area of cubes and cuboids Finding the surface area of prisms	M884 M534 M661	Nets of 3D shapes Finding the area of compound shapes Finding the area of compound shapes containing triangles Converting units of length	M518 M269 M996 M772	Finding the surface area of cylinders (Year 9 Term 1) Finding the surface area of pyramids (Year 10 Term 1)	U464 U871
		Volume	1.5	Finding the volume of cubes and cuboids Finding the volume of prisms Converting units of volume	M765 M722 M465	Finding the area of compound shapes Finding the area of compound shapes containing triangles Converting units of length	M269 M996 M772	Finding the volume of cylinders (Year 9 Term 1) Finding the volume of pyramids (Year 10 Term 1) Finding the volume of cones (Year 10 Term 1) Finding the volume of spheres (Year 10 Term 1)	U915 U484 U116 U617

# Y8 Term 3

Term	Block	Unit	Length (weeks)	Topics	Topic Code	Building blocks	Topic Code	Further topics to explore	Topic Code
Y8 Term 3	Linear graphs	Plotting graphs and finding equations	1	Plotting horizontal, vertical and diagonal lines Plotting straight line graphs Finding equations of straight line graphs	M797 M932 M544	Reading and plotting coordinates Substituting into algebraic formulae	M618 M208		
	Transformations	Transforming shapes	1	Translation Reflection	M139 M290	Reading and plotting coordinates	M618	Rotation (Year 9 Term 3) Enlargement by a positive scale factor (Year 9 Term 3)	U696 U519
	Angles	Finding unknown angles	2	Angles in quadrilaterals Combining angle facts Angles on parallel lines Using quadrilateral properties to find angles Angles in polygons	M679 M319 M606 M393 M653	Angles on a line and about a point Vertically opposite angles Angles in triangles	M818 M163 M351		
	Statistical diagrams	Drawing and interpreting statistical diagrams	2	Drawing pie charts Interpreting pie charts Drawing line graphs Interpreting line graphs Drawing stem-and-leaf diagrams Interpreting stem-and-leaf diagrams Finding averages from diagrams	M574 M165 M140 M183 M648 M210 U854	Drawing angles Angles on a line and about a point Fractions of amounts without a calculator Averages and range	M331 M818 M695 M328, M934, M841, M940	Plotting scatter graphs (Year 9 Term 3) Interpreting scatter graphs (Year 9 Term 3)	U199 U277
	Inequalities	Linear inequalities	1	Reading and drawing linear inequalities on number lines Solving single inequalities	M384 M118	Using number lines Solving equations with one step Mixed problems: solving equations with two or more steps	M763 M707 M509		
	Brackets	Double brackets	1	Expanding double brackets	M960	Expanding single brackets and simplifying expressions	M792	Factorising quadratic equations of the form $x^2+bx+c$ (Year 9 Term 1)	U178
	Algebraic fractions	Fractions review	1	Calculating with fractions Calculating with mixed numbers	M645 M619	Adding and subtracting fractions Adding and subtracting mixed numbers Multiplying fractions Multiplying with mixed numbers Dividing fractions Dividing with mixed numbers	M835 M931 M157 M197 M110 M265		
				Algebraic fractions	1.5	Simplifying algebraic fractions by factorising Adding and subtracting algebraic fractions	M754 M336	Calculating with fractions Simplifying algebraic fractions by cancelling common factors Factorising into one bracket	M645 M568 M100
Recurring decimals	Fractions and recurring decimals	1.5	Using recurring decimal notation Converting fractions to recurring decimals	M701 M922	Using a written method to divide by integers to get a decimal answer Converting between fractions, decimals and percentages	M262 M264	Converting recurring decimals to fractions (Year 10H Term 3)	U689	

Term	Block	Unit	Length (weeks)	Topics	Topic Code	Building blocks	Topic Code	Further topics to explore	Topic Code
Y9 Term 1	Fractions and percentages	Fractions, decimals and percentages review	1.5	Converting between fractions, decimals and percentages Ordering fractions, decimals and percentages Finding fractions of amounts without a calculator Finding fractions of amounts with a calculator Finding percentages of amounts without a calculator Finding percentages of amounts with a calculator	U888 U594 U881 U916 U554 U349	Finding equivalent fractions Ordering fractions Multiplying fractions	U704 U746 U475	Converting fractions to recurring decimals (Year 10H Term 3)	U550
		Percentage change	1.5	Percentage change without a calculator Percentage change with a calculator Finding original values in percentage calculations Finding the percentage an amount has been changed by Simple interest calculations	U773 U671 U286 U278 U533	Finding percentages of amounts without a calculator Finding percentages of amounts with a calculator	U554 U349	Compound interest calculations (Year 10 Term 1)	U332
	Probability	Theoretical and experimental probability	1	Expected results from repeated experiments Calculating experimental probabilities Frequency trees	U166 U580 U280	Writing probabilities as fractions, decimals and percentages Probabilities of mutually exclusive events Finding fractions of amounts Finding percentages of amounts	U510 U683 U881, U916 U554, U349		
	Standard form	Calculations with standard form	1	Multiplying and dividing numbers in standard form Adding and subtracting numbers in standard form Standard form with a calculator	U264 U290 U161	Using standard form with positive indices Using standard form with negative indices Index rules with positive indices Index rules with negative indices Using a calculator	U330 U534 U235 U684 U926		
	Inequalities	Linear inequalities	1	Solving inequalities with the unknown on both sides Solving double inequalities Constructing and solving inequalities	U738 U145 U337	Reading and drawing inequalities on number lines Solving single inequalities	U509 U759	Graphs of linear inequalities (Year 11H Term 2)	U747
	Quadratic equations	Factorising and solving quadratic equations	1.5	Factorising quadratic equations of the form $x^2+bx+c$ Factorising the difference of two squares Factorising to solve quadratic equations of the form $x^2+bx+c=0$	U178 U963 U228	Expanding double brackets Factorising into one bracket	U768 U365	Completing the square (Year 10H Term 3) Factorising quadratic expressions of the form $ax^2+bx+c$ (Year 10H Term 3) Factorising to solve quadratic equations of the form $ax^2+bx+c=0$ (Year 10H Term 3)	U397 U858 U960
	Formulae	Rearranging formulae	1.5	Changing the subjects of formulae with one step Changing the subjects of formulae with two or more steps	U675 U181	Solving equations with two or more steps Solving equations with the variable on both sides Solving equations with the variable in the denominator	U325 U870 U505		
	Constructions	Constructing bisectors and perpendicular lines	1.5	Constructing bisectors of angles Constructing perpendicular bisectors and lines	U787 U245	Using a ruler Using a pair of compasses	M985 M196	Constructing loci (Year 10 Term 1) Constructing triangles (Year 9 Term 3)	U820 U187
Circles	Circles and cylinders	1.5	Finding the arc length of sectors Finding the area of sectors Finding the surface area of cylinders Finding the volume of cylinders	U221 U373 U464 U915	Identifying parts of circles Finding the circumference of circles Finding the area of circles Finding the surface area of prisms Finding the volume of prisms Using a calculator	U767 U604 U950 U259 U174 U926	Finding the surface area of cones (Year 10 Term 1) Finding the surface area of spheres (Year 10 Term 1) Finding the volume of cones (Year 10 Term 1) Finding the volume of spheres (Year 10 Term 1)	U523 U893 U116 U617	



Term	Block	Unit	Length (weeks)	Topics	Topic Code	Building blocks	Topic Code	Further topics to explore	Topic Code
Y9 Term 2	Rounding	Error intervals	1	Finding error intervals Truncating decimals Finding error intervals for truncated numbers	U657 U108 U301	Rounding integers Rounding decimals Rounding integers using significant figures Rounding decimals using significant figures	U480 U298 U731 U965	Finding bounds for calculations (Year 10H Term 3)	U587
	3D shapes	Representations of 3D shapes	1	Plans and elevations	U743	Properties of 3D shapes	U719		
	Pythagoras' theorem	Pythagoras' theorem in 2D	2	Using Pythagoras' theorem in 2D Applying Pythagoras' theorem in 2D	U385 U828	Calculating with roots and powers Solving equations with two or more steps	U851 U325	Using Pythagoras' theorem in 3D (Year 11H Term 1) Understanding sin, cos, tan (Year 10 Term 1) Finding unknown sides in right-angled triangles (Year 10 Term 1) Finding unknown angles in right-angled triangles (Year 10 Term 1)	U541 U605 U283 U545
	Ratio and proportion	Ratio	1	Writing and simplifying ratios Sharing amounts in a given ratio	U687 U577	Finding the highest common factor	U529	Combining ratios (Year 10 Term 2) Calculating with ratios and algebra (Year 10 Term 2) Changing ratios (Year 10 Term 2)	U921 U676 U865
		Proportion word problems	1.5	Solving direct proportion word problems Solving inverse proportion word problems Currency conversion	U721 U357 U610	Using a calculator	U926	Interpreting direct proportion equations (Year 10 Term 3) Interpreting inverse proportion equations (Year 10 Term 3)	U640 U364
	Linear graphs	Plotting graphs and finding equations	2	Plotting straight line graphs Finding equations of straight line graphs Interpreting equations of straight line graphs	U741 U315 U689	Reading and plotting coordinates Plotting horizontal, vertical and diagonal lines Plotting straight line graphs	U789 M797 M932	Finding the equation of a straight line from its gradient and a point (Year 10 Term 2) Finding the equation of a straight line from two points on the line (Year 10 Term 2)	U477 U848
	Compound measures	Speed and rates	2	Calculating with speed Calculating with rates	U151 U256	Substituting into formulae Solving equations with two or more steps Changing the subjects of formulae with two or more steps Reading, converting and calculating with time Converting units of length, mass and capacity	U585, U144 U325, U505 U181 U902 U388	Calculating with density (Year 10 Term 2) Calculating with pressure (Year 10 Term 2)	U910 U527
Motion-time graphs	Distance-time graphs	1.5	Plotting distance-time graphs Interpreting distance-time graphs Calculating speed from distance-time graphs Plotting distance-time graphs using speeds	U403 U914 U462 U966	Calculating with speed Finding equations of straight line graphs	U151 U315	Plotting velocity-time graphs (Year 10 Term 2)	U937	

Term	Block	Unit	Length (weeks)	Topics	Topic Code	Building blocks	Topic Code	Further topics to explore	Topic Code
Y9 Term 3	Quadratic graphs	Plotting and interpreting quadratic graphs	1.5	Plotting graphs of quadratic functions Interpreting graphs of quadratic functions Solving quadratic equations graphically	U989 U667 U601	Substituting into algebraic formulae Plotting straight line graphs	U585 U741	Graphs of cubic functions (Year 10 Term 2) Graphs of reciprocal functions (Year 10 Term 2)	U980 U593
	Angles and bearings	Angles	1	Combining angle facts Angles on parallel lines Using quadrilateral properties to find angles Angles in polygons	U655 U826 U329 U427	Angles on a line and about a point Vertically opposite angles Angles in triangles Angles in quadrilaterals Line and shape properties	U390 U730 U628 U732 U121		
		Bearings	1	Measuring and drawing bearings Calculating bearings	U525 U107	Understanding, measuring and drawing angles Combining angle facts Angles on parallel lines	U447 U655 U826		
	Transformations	Transforming shapes	1	Translation Reflection Rotation Enlargement by a positive scale factor Mixed transformations	U196 U799 U696 U519 M881	Translation Reflection	M139 M290	Enlargement by a positive or negative scale factor (Year 10H Term 3) Combining transformations (Year 10 Term 3)	U134 U766
	Similarity and congruence	Similarity	1	Understanding similarity Finding unknown sides in similar shapes	U551 U578	Solving direct proportion word problems	U721	Finding the perimeter and area of similar shapes (Year 11H Term 2)	U630
		Congruence	1	Understanding congruence Congruent triangles Constructing triangles	U790 U866 U187			Geometric proofs with congruence and similarity (Year 11H Term 2)	U887
	Handling data and statistical diagrams	Collecting and presenting data	1	Types of data Presenting data and making conclusions Comparing populations using diagrams Choosing suitable averages and solving problems	U322 U571 U520 U717	Averages and range Interpreting graphs and charts	U526, U456, U557, U193,		
		Scatter graphs	1	Plotting scatter graphs Interpreting scatter graphs Using lines of best fit	U199 U277 U128	Reading and plotting coordinates Finding equations of straight line graphs	U789 U315		
		Grouped data	2	Interpreting frequency tables with grouped data Finding averages from grouped data Drawing and interpreting frequency polygons	U312 U877 U840	Interpreting frequency tables and two-way tables Finding averages from frequency tables	U981 U569		
	Vectors	Column vectors	1.5	Understanding column vectors Adding and subtracting column vectors Multiplying column vectors by a scalar Identifying parallel vectors	U632 U903 U564 U660	Solving geometric problems using vectors	U781		

Term	Block	Unit	Length (weeks)	Topics	Topic Code	Building blocks	Topic Code	Further topics to explore	Topic Code	Notes
Y10 Term 1	Percentages	Repeated percentage change	2	Compound interest calculations Growth and decay	U332 U988	Percentage change with a calculator Finding original values in percentage calculations	U671 U286			
	Surface area and volume	Surface area	2	Finding the surface area of pyramids	U871	Finding the surface area of cubes and cuboids	U929			*Topic is included again in Year 11 Foundation so, if preferable, it can be taught later for classes that are likely to
				Finding the surface area of cones Finding the surface area of spheres Finding the surface area of frustums* Finding the surface area of composite shapes*	U523 U993 U334 U561	Finding the surface area of prisms Finding the surface area of cylinders	U259 U464			
	Volume	1.5	Finding the volume of pyramids	U484	Finding the volume of cubes and cuboids	U786			*Topic is included again in Year 11 Foundation so, if preferable, it can be taught later for classes that are likely to	
			Finding the volume of cones Finding the volume of spheres Finding the volume of frustums* Finding the volume of composite shapes*	U116 U617 U350 U543	Finding the volume of prisms Finding the volume of cylinders	U174 U915				
	Simultaneous equations	Linear simultaneous equations	2	Solving simultaneous equations using elimination Solving simultaneous equations using substitution Solving simultaneous equations graphically Constructing and solving simultaneous equations	U760 U757 U836 U137	Solving equations with two or more steps Solving equations with the unknown on both sides Constructing and solving equations	U325 U870 U599			
	Formulae	Rearranging formulae	1	Changing the subjects of formulae with two or more steps Changing the subject when the subject appears more than	U181 U191	Changing the subjects of formulae with one step Solving equations with two or more steps Solving equations with the unknown on both sides Solving equations with the unknown in the denominator Expanding and factorising brackets	U675 U325 U870 U505 U179, U768, U365			
Trigonometry	Right-angled trigonometry	2.5	Understanding sin, cos, tan Finding unknown sides in right-angled triangles Finding unknown angles in right-angled triangles Using the exact values of trigonometric ratios Angles of elevation and depression* Calculating with trigonometry and bearings*	U605 U283 U545 U627 U967 U164	Calculating with roots and powers Solving equations with two or more steps Changing the subjects of formulae with two or more steps Angles in triangles Measuring and drawing bearings	U851 U325 U181 U628 U525			*Topic is included again in Year 11 Foundation so, if preferable, it can be taught later for classes that are likely to	
Constructions	Constructions and loci	1	Constructing loci	U820	Constructing bisectors of angles Constructing perpendicular bisectors and lines	U787 U245				

Term	Block	Unit	Length (weeks)	Topics	Topic Code	Building blocks	Topic Code	Further topics to explore	Topic Code	Notes	
Y10 Term 2	Linear graphs	Equations of linear graphs	2	Finding the equation of a straight line from its gradient and a Finding the equation of a straight line from two points on the Equations of parallel lines Equations of parallel and perpendicular lines*	U477 U848 U377 U898	Finding equations of straight line graphs Interpreting equations of straight line graphs	U315 U669			*Topic is 'Higher only' so does not need to be taught to classes that are likely to follow the Foundation scheme.	
	Real-life graphs	Plotting and interpreting real-life graphs	2	Plotting linear real-life graphs Using and interpreting linear real-life graphs Finding equations of linear real-life graphs Sketch graphs of water flows	U652 U638 U862 U896	Plotting straight line graphs Finding equations of straight line graphs Interpreting equations of straight line graphs	U741 U315 U669				
	Set notation	Venn diagrams and set notation	1	Venn diagrams with set notation Using set notation	U748 U296	Venn diagrams Writing probabilities as fractions, decimals and percentages	U476 U510	Conditional probabilities from tables (Year 11H Term 2) Conditional probabilities from Venn diagrams (Year 11H Term 2)	U246 U699		
	Tree diagrams	Independent and dependent events	2	Tree diagrams for independent events Tree diagrams for dependent events	U558 U729	Multiplying fractions Writing probabilities as fractions, decimals and percentages	U475 U510	Using the conditional probability formula (Year 11H Term 2) Conditional probabilities from tree diagrams (Year 11H Term 2)	U821 U806		
	Compound measures	Density and pressure	1	Calculating with density Calculating with pressure	U910 U527	Substituting Converting units Solving equations Changing the subjects of formulae with two or more steps	U585, U144 U388, U468, U3248 U325, U505 U181				
	Ratio	Working with ratios and algebra	2	Combining ratios Calculating with ratios and algebra Changing ratios	U921 U676 U865	Writing and simplifying ratios Using equivalent ratios to find unknown amounts Sharing amounts in a given ratio Converting between ratios, fractions and percentages	U687 U753 U577 U176				
	Graphs	Velocity-time graphs		1	Plotting velocity-time graphs Calculating acceleration from velocity-time graphs	U937 U562	Plotting distance-time graphs Interpreting distance-time graphs Calculating with speed Calculating speed from distance-time graphs Plotting distance-time graphs using speeds	U403 U914 U151 U462 U966	Calculating distances from velocity-time graphs (Year 11H Term 2)	U611	
		Cubic, reciprocal and exponential graphs		1	Graphs of cubic functions Graphs of reciprocal functions Graphs of exponential functions*	U980 U593 U229	Plotting graphs of quadratic functions Interpreting graphs of quadratic functions	U899 U667			*Topic is 'Higher only' so does not need to be taught to

Term	Block	Unit	Length (weeks)	Topics	Topic Code	Building blocks	Topic Code	Further topics to explore	Topic Code	Notes	
Y10 Term 3 (F)	Sequences	Arithmetic and geometric sequences	1	Position-to-term rules for arithmetic sequences Position-to-term rules for sequences of patterns Position-to-term rules for geometric sequences	U498 U978 U958	Term-to-term rules Substituting into position-to-term rules	U213 U530	Special sequences (Year 11F Term 2)	U680		
	Handling data	Sampling	1	Sampling and bias	U162	Solving direct proportion word problems	U721				
	Proportion	Direct and inverse proportion	1.5	Interpreting direct proportion equations Interpreting inverse proportion equations Graphs of direct and inverse proportion	U640 U364 U238	Solving direct proportion word problems Solving inverse proportion word problems Graphs of reciprocal functions	U721 U657 U593				
	Transformations	Transforming shapes	1	Combining transformations	U766	Translation Reflection Rotation Enlargement by a positive scale factor	U196 U799 U696 U519				
	Rounding	Error intervals	1	Finding error intervals Finding error intervals for truncated numbers	U657 U301	Rounding integers Rounding decimals Rounding integers using significant figures Rounding decimals using significant figures Truncating decimals	U480 U298 U731 U965 U108				
	Indices	Index laws	1	Index rules with positive indices Index rules with negative indices Simplifying expressions using index laws	U235 U694 U962	Calculating with roots and powers Simplifying fractions	U851 U466	Simplifying expressions using index laws (Year 11F Term 1) Simplifying algebraic fractions by cancelling common factors (Year 11F Term 1)	U662 U103		
	Brackets	Expanding and factorising brackets	2.5	Expanding double brackets Factorising the difference of two squares Factorising to solve quadratic equations of the form	U738 U178 U963 U228	Using algebraic notation Simplifying expressions by collecting like terms Finding the highest common factor Expanding single brackets Factorising into one bracket	U613 U105 U529 U179 U365				
	Handling data and statistical diagrams	Grouped data	1	Interpreting frequency tables with grouped data Finding averages from grouped data	U312 U877	Interpreting frequency tables and two-way tables Finding averages from frequency tables	U981 U569				
		Drawing and interpreting statistical diagrams	2	Drawing stem-and-leaf diagrams Interpreting stem-and-leaf diagrams Drawing line graphs Interpreting line graphs Drawing and interpreting frequency polygons	U200 U909 U590 U193 U940	Reading and plotting coordinates Drawing bar charts Interpreting bar charts	U789 U363 U557				
	Y10 Term 3 (H)	Sequences	Quadratic and geometric sequences	1	Position-to-term rules for quadratic sequences Position-to-term rules for geometric sequences Special sequences	U206 U958 U680	Term-to-term rules Substituting into position-to-term rules Position-to-term rules for arithmetic sequences Position-to-term rules for sequences of patterns	U213 U530 U498 U978			
Handling data		Sampling	1	Sampling and bias Capture-recapture	U162 U328	Solving direct proportion word problems	U721				
Proportion		Direct and inverse proportion	1.5	Constructing direct proportion equations Constructing inverse proportion equations Graphs of direct and inverse proportion	U407 U138 U238	Solving direct proportion word problems Solving inverse proportion word problems Currency conversion Constructing and solving equations Graphs of reciprocal functions	U721 U357 U610 U599 U593				
Transformations		Transforming shapes	1	Enlargement by a positive or negative scale factor Combining transformations	U134 U766	Translation Reflection Rotation	U196 U799 U696				
Rounding		Bounds	1	Finding bounds for calculations	U587	Finding error intervals Finding error intervals for truncated numbers	U657 U301				
Indices		Index laws	1	Estimating roots and powers Indices of the form $1/a$ Indices of the form $ab$	U299 U985 U772	Calculating with roots and powers Index rules with positive indices Index rules with negative indices	U851 U235 U694	Multiplying and dividing surds (Year 11H Term 1) Simplifying surds (Year 11H Term 1) Adding and subtracting surds (Year 11H Term 1) Expanding brackets with surds (Year 11H Term 1)	U633 U338 U872 U499		
Recurring decimals		Fractions and recurring decimals	1	Converting fractions to recurring decimals Converting recurring decimals to fractions	U550 U689	Using a written method to divide with decimals Solving equations with two or more steps	U868 U325				
Brackets		Expanding and factorising brackets	2	Expanding triple brackets Completing the square Factorising quadratic expressions of the form $ax^2+bx+c$ Factorising to solve quadratic equations of the form	U606 U397 U858 U960	Expanding double brackets Factorising quadratic expressions of the form $x^2+bx+c$ Factorising the difference of two squares Factorising to solve quadratic equations of the form	U768 U178 U963 U228	Solving quadratic equations by completing the square (Year 11H Term 1) Solving quadratic equations graphically (Year 11H Term 1)	U589 U601		
Handling data and statistical diagrams		Cumulative frequency graphs	1	Drawing cumulative frequency graphs Interpreting cumulative frequency graphs	U182 U642	Interpreting frequency tables with grouped data	U312				
		Box plots	1.5	Drawing box plots Interpreting box plots Comparing populations using box plots and cumulative	U879 U837 U507	Calculating the median Finding the mode	U456 U260				

# Y11 Term 1 (F)

Term	Block	Unit	Length (weeks)	Topics	Topic Code	Building blocks	Topic Code
Y11 Term 1 (F)	Factors, multiples and primes	HCF and LCM	1	Finding the lowest common multiple Finding the highest common factor Prime factor decomposition Finding the HCF and LCM using prime factor decomposition	U751 U529 U739 U250	Finding factors and using divisibility tests Finding prime numbers Venn diagrams	U211 U236 U476
	Fractions	Fractions and mixed numbers	1	Ordering fractions and mixed numbers Adding and subtracting mixed numbers Multiplying with mixed numbers Dividing with mixed numbers	U439 U793 U224 U538	Simplifying fractions Ordering fractions Converting between mixed numbers and improper fractions Adding and subtracting fractions Multiplying fractions Dividing fractions	U646 U746 U692 U736 U475 U544
	Expressions	Simplifying expressions	1	Simplifying expressions using index laws Simplifying algebraic fractions by cancelling common factors	U662 U103	Index rules with positive indices Index rules with negative indices Simplifying expressions by collecting like terms Simplifying fractions	U235 U694 U105 U646
	Equations	Solving equations	1.5	Solving equations with two or more steps Solving equations with the unknown on both sides Solving equations with the unknown in the denominator Constructing and solving equations Factorising to solve quadratic equations of the form $x^2+bx+c$ Solving quadratic equations graphically	U325 U870 U505 U599 U228 U601	Solving equations with one step Factorising quadratic expressions of the form $x^2+bx+c$	U755 U178
		Simultaneous equations	1	Solving simultaneous equations using elimination Solving simultaneous equations using substitution Solving simultaneous equations graphically Constructing and solving simultaneous equations	U760 U757 U836 U137	Plotting straight line graphs Substituting into algebraic formulae Changing the subjects of formulae with two or more steps	U741 U585 U181
	Angles	Finding unknown angles	1	Combining angle facts Angles on parallel lines Using quadrilateral properties to find angles Angles in polygons	U655 U826 U329 U427	Angles on a line and about a point Vertically opposite angles Angles in triangles Angles in quadrilaterals Line and shape properties	U390 U730 U628 U732 U121
	Right-angled triangles	Pythagoras' theorem and trigonometry	2	Using Pythagoras' theorem in 2D Applying Pythagoras' theorem in 2D Finding unknown sides in right-angled triangles Finding unknown angles in right-angled triangles Using the exact values of trigonometric ratios Angles of elevation and depression Calculating bearings Calculating with trigonometry and bearings	U385 U828 U283 U545 U627 U967 U107 U164	Calculating with roots and powers Solving equations with two or more steps Changing the subjects of formulae with two or more steps Angles in triangles Angles on parallel lines Understanding sin, cos and tan Measuring and drawing bearings	U851 U325 U181 U628 U826 U605 U525
	Surface area and volume	Surface area	1	Finding the surface area of cones and spheres Finding the surface area of frustums Finding the surface area of composite shapes	U771 U334 U561	Finding the surface area of cubes and cuboids Finding the surface area of prisms Finding the surface area of pyramids Finding the surface area of cylinders	U929 U259 U871 U464
		Volume	1	Finding the volume of cones and spheres Finding the volume of frustums Finding the volume of composite shapes	U426 U350 U543	Finding the volume of cubes and cuboids Finding the volume of prisms Finding the volume of pyramids Finding the volume of cylinders	U786 U174 U484 U915
	Statistical diagrams	Drawing and interpreting statistical diagrams	1.5	Drawing pie charts Interpreting pie charts Plotting scatter graphs Interpreting scatter graphs Using lines of best fit	U508 U172 U199 U277 U128	Angles on a line and about a point Finding fractions of amounts Bar charts Line graphs Interpreting frequency tables with grouped data	U390 U881, U916 U363, U557 U590, U193 U312

# Y11 Term 2 (F)

Term	Block	Unit	Length (weeks)	Topics	Topic Code	Building blocks	Topic Code
Y11 Term 2 (F)	Probability	Theoretical and experimental probability	1.5	Probabilities of mutually exclusive events Sample space diagrams Expected results from repeated experiments Venn diagrams with set notation Using set notation Tree diagrams for independent events Tree diagrams for dependent events Experimental probabilities	U683 U104 U166 U748 U296 U558 U729 U580	Writing probabilities as fractions, decimals and percentages Venn diagrams Frequency trees Calculations with fractions	U510 U476 U280 U736, U475,
	Inequalities	Linear inequalities	1	Solving inequalities with the unknown on both sides Solving double inequalities Constructing and solving inequalities	U738 U145 U337	Reading and drawing inequalities on number lines Solving single inequalities Solving equations with the unknown on both sides	U509 U759 U870
	Vectors	Vector problems	1.5	Adding and subtracting column vectors Multiplying column vectors by a scalar Identifying parallel vectors Solving geometric problems using vectors	U903 U564 U660 U781	Understanding column vectors	U632
	Percentages	Percentage change	1	Percentage change with a calculator Finding original amounts in percentage calculations Finding the percentage an amount has been changed by Compound interest calculations Growth and decay	U671 U286 U278 U332 U988	Finding percentages of amounts without a calculator Finding percentages of amounts with a calculator Percentage change without a calculator	U554 U349 U773
	Compound measures	Calculating with compound measures	1	Calculating with speed Calculating with rates Calculating with density Calculating with pressure	U151 U256 U910 U527	Substituting into formulae Solving equations Changing the subjects of formulae with two or more steps Reading, converting and calculating with time Converting units of length, mass and capacity Converting units of area and volume	U585, U144 U325, U505 U181 U902 U388 U248, U468
	Ratio and proportion	Working with ratios and algebra	1	Combining ratios Calculating with ratios and algebra Changing ratios	U921 U676 U865	Writing and simplifying ratios Using equivalent ratios to find unknown amounts Sharing amounts in a given ratio Converting between ratios, fractions and percentages	U687 U753 U577 U176
			Proportion word problems	1	Solving direct proportion word problems Solving inverse proportion word problems Currency conversion	U721 U357 U610	Using a calculator
	Standard form	Calculating with standard form	1	Multiplying and dividing numbers in standard form Adding and subtracting numbers in standard form Standard form with a calculator	U264 U290 U161	Using standard form with positive indices Using standard form with negative indices Index rules with positive indices Index rules with negative indices Using a calculator	U330 U534 U235 U694 U926
	Sequences	Arithmetic and geometric sequences	1	Position-to-term rules for arithmetic sequences Position-to-term rules for sequences of patterns Position-to-term rules for geometric sequences Special sequences	U498 U978 U958 U680	Term-to-term rules Substituting into position-to-term rules	U213 U530
Linear graphs	Equations of linear graphs	2	Plotting straight line graphs Finding equations of straight line graphs Interpreting equations of straight line graphs Finding the equation of a straight line from its gradient and a Finding the equation of a straight line from two points on the Equations of parallel lines	U741 U315 U669 U477 U848 U377	Reading and plotting coordinates	U789	

# Y11 Term 1 (H)

Term	Block	Unit	Length (weeks)	Topics	Topic Code	Building blocks	Topic Code
Y11 Term 1 (H)	Surds	Calculating with surds	1	Multiplying and dividing surds Simplifying surds Adding and subtracting surds Expanding brackets with surds	U633 U338 U872 U499	Calculating with roots and powers Simplifying expressions by collecting like terms Expanding single brackets Expanding double brackets	U851 U105 U179 U768
		Rationalising denominators	1	Rationalising denominators containing a single term Rationalising denominators containing two terms	U707 U281	Multiplying and dividing surds Simplifying surds Adding and subtracting surds Expanding brackets with surds Simplifying algebraic fractions by cancelling common factors	U633 U338 U872 U499 U103
	Algebraic fractions	Calculating with algebraic fractions	1	Simplifying algebraic fractions by factorising into one bracket Simplifying algebraic fractions by factorising into two brackets Adding and subtracting algebraic fractions Multiplying algebraic fractions Dividing algebraic fractions	U437 U294 U685 U457 U824	Calculations with fractions Simplifying algebraic fractions by cancelling common factors Factorising into one bracket Factorising quadratic expressions of the form $x^2+bx+c$ Factorising quadratic expressions of the form $ax^2+bx+c$	U736, U475, U554 U103 U365 U178 U858
	Equations	Solving quadratic equations	1.5	Factorising to solve quadratic equations of the form $ax^2+bx+c$ Solving quadratic equations by completing the square Solving quadratic equations using the quadratic formula Constructing and solving quadratic equations Solving quadratic equations graphically	U960 U589 U665 U150 U601	Factorising quadratic expressions of the form $ax^2+bx+c$ Factorising to solve quadratic equations of the form $ax^2+bx+c$ Completing the square Substituting into algebraic formulae	U858 U228 U397 U585
		Simultaneous equations	1.5	Solving simultaneous equations involving quadratics Solving simultaneous equations involving quadratics	U547 U875	Solving simultaneous equations using elimination Solving simultaneous equations using substitution Solving simultaneous equations graphically	U760 U757 U836
	Pythagoras' theorem and trigonometry	Trigonometric ratios and graphs	1	Using the exact values of trigonometric ratios - Higher Graphs of trigonometric functions	U319 U450	Understanding sin, cos and tan Finding unknown sides in right-angled triangles Finding unknown angles in right-angled triangles Using the exact values of trigonometric ratios	U605 U283 U545 U627
		Non right-angled trigonometry	1	The sine rule The cosine rule The area rule	U952 U591 U592	Understanding sin, cos and tan Finding unknown sides in right-angled triangles Finding unknown angles in right-angled triangles Changing the subjects of formulae with two or more steps Solving equations	U605 U283 U545 U181 U325, U505
		3D Pythagoras' theorem and trigonometry	1	Using Pythagoras' theorem in 3D Trigonometry in 3D shapes	U541 U170	Using Pythagoras' theorem in 2D Applying Pythagoras' theorem in 2D Finding unknown sides in right-angled triangles Finding unknown angles in right-angled triangles	U385 U828 U283 U545
	Circle geometry	Circle theorems	2	Angles subtended at the centre or circumference of a circle Angles in segments and cyclic quadrilaterals Circle theorems for chords and tangents Alternate segment theorem	U459 U251 U489 U130	Combining angle facts	U655
	Statistical diagrams	Histograms	1	Drawing histograms with equal class widths Drawing histograms with unequal class widths Interpreting histograms Calculating averages from histograms	U185 U814 U983 U267	Interpreting frequency tables with grouped data Finding averages from grouped data	U312 U877



# Y11 Term 2 (H)

Term	Block	Unit	Length (weeks)	Topics	Topic Code	Building blocks	Topic Code
Y11 Term 2 (H)	Probability	Conditional probability	1.5	Conditional probabilities from tables Conditional probabilities from Venn diagrams Using the conditional probability formula Conditional probabilities from tree diagrams Using the product rule for counting	U246 U699 U821 U806 U369	Probabilities of mutually exclusive events Venn diagrams Tree diagrams for independent events Tree diagrams for dependent events	U683 U476 U558 U729
	Inequalities	Linear and quadratic inequalities	1	Graphs of linear inequalities Solving quadratic inequalities	U747 U133	Solving linear inequalities Factorising to solve quadratic equations of the form Plotting graphs of quadratic functions Plotting straight line graphs	U759, U738, U145 U228 U989 U741
	Functions	Substituting into functions	1	Substituting into functions Substituting into composite functions	U637 U895	Substituting into algebraic formulae	U585
		Finding composite and inverse functions	1	Finding composite functions Finding inverse functions	U448 U996	Substituting into functions Substituting into composite functions Changing the subjects of formulae with two or more steps Expanding single brackets Expanding double brackets	U637 U895 U181 U179 U768
	Transformations	Transforming graphs	1	Translating graphs Reflecting graphs Transforming graphs	U598 U487 U455	Substituting into functions Translation Reflection	U637 U196 U799
	Iteration	Using iterative formulae	1	Using recurrence relations Substituting into iterative formulae Finding approximate solutions to equations using iteration	U171 U434 U168	Substituting into algebraic formulae Changing the subjects of formulae with two or more steps	U585 U181
	Algebraic proof	Writing algebraic proofs	1	Writing algebraic proofs	U582	Expanding double brackets Simplifying algebraic fractions by factorising into one bracket Changing the subjects of formulae with two or more steps	U768 U437 U181
	Similarity	Area and volume of similar shapes	1	Finding the perimeter and area of similar shapes Finding the surface area and volume of similar shapes	U630 U110	Finding unknown sides in similar shapes Converting units of area Converting units of volume	U578 U248 U468
	Geometric proof	Vector proofs	1	Solving geometric problems using vectors Geometric proofs with vectors	U781 U560	Adding and subtracting column vectors Multiplying column vectors by a scalar Identifying parallel vectors	U903 U564 U660
		Writing geometric proofs	1	Geometric proofs with angle facts Geometric proofs with congruence and similarity Proving the circle theorems	U471 U887 U807	Finding unknown angles Similarity and congruence Circle theorems	U655, U826, U578, U603, U459, U251,
Graphs	Non-linear graphs	1.5	Estimating gradients of non-linear graphs using tangents Calculating distances from velocity-time graphs Estimating areas under non-linear graphs Equations of circles and tangents	U800 U611 U882 U567	Equations of parallel and perpendicular lines Interpreting graphs of quadratic functions Graphs of cubic functions Graphs of reciprocal functions Graphs of exponential functions Finding the area of trapeziums	U898 U667 U980 U593 U229 U265	