

Year	Term	Week	Unit	Ref	Lesson
Year 9	Autumn Term	1-2	9 Measures and accuracy (Number)	9.1	Estimation and approximation
				9.2	Calculator methods
		3-4		9.3	Measures and accuracy
					Review
					Assessment 9
	Spring Term	5-6	10 Equations and inequalities (Algebra)	10.1	Solving linear equations 1
				10.2	Solving linear equations 2
		7-8		10.3	Quadratic equations
				10.4	Simultaneous equations

Year 2

Year 2 Autumn Term

Autumn

9-10	10.5	Inequalities
		Review
11-12	11.1	Assessment 10
		Starting the business
11-12	11.2	Circles 1
		Circles 2
13-14	11.3	Constructions
		Loci
13-14	11.4	Review
		Assessment 11

11 Circles and constructions
(Geometry)

Lifeskills 2

Year 2

Year 2

g term	Spring Term		12 Ratio and proportion (Ratio and proportion)	12.1	Proportion
	15-16	17-18		12.2	Ratio and scales
	19-20			12.3	Percentage change
				Review	
	21-22	Assessment 12			
		13 Factors, powers and roots (Number)		13.1	Factors and multiples
		13.2	Prime factor decomposition		
	13.3		Powers and roots		
	Review				
	Assessment 13				
14.1		Drawing straight-line graphs			

Year 7

Spring	23-24	14 Graphs 1 (Algebra)	14.2	Equation of a straight line
	25-26		14.3	Kinematic graphs
				Review Assessment 14
Summer Term	27-28	15 Working in 3D (Geometry)	15.1	3D shapes
			15.2	Volume of a prism
	29-30		15.3	Volume and surface area
				Review Assessment 15
	Autumn Term			Lifeskills 3
			16.1	Frequency diagrams

Year 2	Summer Term	Summer	16 Handling data 2 (Statistics)	31-32	16.2	Averages and spread 2
				33-34	16.3	Scatter graphs and correlation
					16.4	Time series
						Review
					Assessment 16	
				35-36	17.1	Calculating with roots and indices
			17 Calculations 2 (Number)		17.2	Exact calculations
					17.3	Standard form
			37-38		Review	
					Assessment 17	

GCSE Ref	GCSE Objective statement	MyMaths
N14 [b, c] N15 [b]	Estimate answers; check calculations using approximation and estimation, including answers obtained using technology. Round numbers and measures to an appropriate degree of accuracy (e.g. to a specified number of decimal places or significant figures) use inequality notation to specify simple error intervals due to truncation or rounding.	1002 1004 1005 1043
N14 N15 [b]	Estimate answers; check calculations using approximation and estimation, including answers obtained using technology. Round numbers and measures to an appropriate degree of accuracy (e.g. to a specified number of decimal places or significant figures) use inequality notation to specify simple error intervals due to truncation or rounding.	1043 1932 1933
N13 N15 N16 R1 [c, d] R11 [b, c, e] G14	Use standard units of mass, length, time, money and other measures (including standard compound measures) using decimal quantities where appropriate. Round numbers and measures to an appropriate degree of accuracy (e.g. to a specified number of decimal places or significant figures) use inequality notation to specify simple error intervals due to truncation or rounding. Apply and interpret limits of accuracy. Change freely between related standard units (e.g. time, length, area, volume/capacity, mass) and compound units (e.g. speed, rates of pay, prices) in numerical and algebraic contexts. Use compound units such as speed, rates of pay, unit pricing, density and pressure. Use standard units of measure and related concepts (length, area, volume/capacity, mass, time, money, etc).	1006 1067 1121 1246
A17 [b, c] A21	Solve linear equations in one unknown algebraically (including those with the unknown on both sides of the equation); find approximate solutions using a graph. Translate simple situations or procedures into algebraic expressions or formulae; derive an equation (or two simultaneous equations), solve the equation(s) and interpret the solution.	1154 1395 1925
A17 [c] A21	Solve linear equations in one unknown algebraically (including those with the unknown on both sides of the equation); find approximate solutions using a graph. Translate simple situations or procedures into algebraic expressions or formulae; derive an equation (or two simultaneous equations), solve the equation(s) and interpret the solution.	1182 1928
A3 [a, c, d, e] A11 [a - c, e] A18 [b - d, e] A21	Understand and use the concepts and vocabulary of expressions, equations, formulae, identities, inequalities, terms and factors. Identify and interpret roots, intercepts, turning points of quadratic functions graphically; deduce roots algebraically. Solve quadratic equations algebraically by factorising; find approximate solutions using a graph. Translate simple situations or procedures into algebraic expressions or formulae; derive an equation (or two simultaneous equations), solve the equation(s) and interpret the solution.	1169 1181
A19 [b] A21	Solve two simultaneous equations in two variables (linear/linear) algebraically; find approximate solutions using a graph. Translate simple situations or procedures into algebraic expressions or formulae; derive an equation (or two simultaneous equations), solve the equation(s) and interpret the solution.	1175 1176 1319

A3 [a - c, e, f, g]	Understand and use the concepts and vocabulary of expressions, equations, formulae, inequalities, terms, factors and identities.	1161
A22 [b, c, e, f]	Solve linear inequalities in one variable; represent the solution set on a number line.	1162 1930
A5 [b]	Understand and use standard mathematical formulae; rearrange formulae to change the subject.	1083
G9	Identify and apply circle definitions and properties, including: centre, radius, chord, diameter, circumference, tangent, arc, sector and segment.	1088
G17 [d, e]	Know the formulae: circumference of a circle = $2\pi r = \pi d$, area of a circle = πr^2 ; calculate: perimeters of 2D shapes, including circles; areas of circles and composite shapes. Surface area and volume of spheres, pyramids, cones and composite solids.	
A5 [b]	Understand and use standard mathematical formulae; rearrange formulae to change the subject.	1118
G9	Identify and apply circle definitions and properties, including: centre, radius, chord, diameter, circumference, tangent, arc, sector and segment.	
G17 [d, e]	Know the formulae: circumference of a circle = $2\pi r = \pi d$, area of a circle = πr^2 ; calculate: perimeters of 2D shapes, including circles; areas of circles and composite shapes. Surface area and volume of spheres, pyramids, cones and composite solids.	
G18	Calculate arc lengths, angles and areas of sectors of circles.	
G2 [e]	Use the standard ruler and compass constructions (perpendicular bisector of a line segment, constructing a perpendicular to a given line from /at a given point, bisecting a given angle); use these to construct given figures and solve loci problems; know that the perpendicular distance from a point to a line is the shortest distance to the line.	1089 1090
G15 [b, c]	Measure line segments and angles in geometric figures, including interpreting maps and scale drawings and use of bearings.	
R2 [a]	Use scale factors, scale diagrams and maps.	1147
G1 [a - c]	Use conventional terms and notations: points, lines, vertices, edges, planes, parallel lines, perpendicular lines, right angles, polygons, regular polygons and polygons with reflection and/or rotation symmetries; use the standard conventions for labelling and referring to the sides and angles of triangles; draw diagrams from written description.	
G2 [f]	Use the standard ruler and compass constructions (perpendicular bisector of a line segment, constructing a perpendicular to a given line from /at a given point, bisecting a given angle); use these to construct given figures and solve loci problems; know that the perpendicular distance from a point to a line is the shortest distance to the line.	
G15	Measure line segments and angles in geometric figures, including interpreting maps and scale drawings and use of bearings.	

R3	Express one quantity as a fraction of another, where the fraction is less than 1 or greater than 1.	1015
R6 [a]	Express a multiplicative relationship between two quantities as a ratio or a fraction.	1029
R9 [a, d - f, j - m]	Define percentage as 'number of parts per hundred'; interpret percentages and percentage changes as a fraction or a decimal, and interpret these multiplicatively; express one quantity as a percentage of another; compare two quantities using percentages; work with percentages greater than 100%; solve problems involving percentage change, including percentage increase/decrease and original value problems, and simple interest including in financial mathematics.	1037
N11	Identify and work with fractions in ratio problems.	1036
R2 [c]	Use scale factors, scale diagrams and maps.	1038
R4	Use ratio notation, including reduction to simplest form.	1039
R5	Divide a given quantity into two parts in a given part:part or part:whole ratio; express the division of a quantity into two parts as a ratio; apply ratio to real contexts and problems (such as those involving conversion, comparison, scaling, mixing, concentrations).	1103
R6	Express a multiplicative relationship between two quantities as a ratio or a fraction.	
R8 [b]	Relate ratios to fractions and to linear functions.	
R12 [b, c]	Compare lengths, areas and volumes using ratio notation; make links to similarity (including trigonometric ratios).and scale factors.	
R9 [a]	Define percentage as 'number of parts per hundred'; interpret percentages and percentage changes as a fraction or a decimal, and interpret these multiplicatively; express one quantity as a percentage of another; compare two quantities using percentages; work with percentages greater than 100%; solve problems involving percentage change, including percentage increase/decrease and original value problems, and simple interest including in financial mathematics	1060 1237 1302 1934
N4 [h, i]	Use the concepts and vocabulary of prime numbers, factors (divisors), multiples, common factors, common multiples, highest common factor, lowest common multiple, prime factorisation, including using product notation and the unique factorisation theorem.	1032 1034 1044
N4	Use the concepts and vocabulary of prime numbers, factors (divisors), multiples, common factors, common multiples, highest common factor, lowest common multiple, prime factorisation, including using product notation and the unique factorisation theorem.	1032 1044
N5 [b]	Apply systematic listing strategies.	
N6 [d]	Use positive integer powers and associated real roots (square, cube and higher), recognise powers of 2, 3, 4, 5.	1053 1924
A8	Work with coordinates in all four quadrants.	1093
A9 [b, c, d, e]	Plot graphs of equations that correspond to straight-line graphs in the coordinate plane; use the form $y = mx + c$ to identify parallel lines; find the equation of the line through two given points, or through one point with a given gradient.	1394 1395 1396
A17 [a, b]	Solve linear equations in one unknown algebraically (including those with the unknown on both sides of the equation); find approximate solutions using a graph.	

A9 [a, c]	Plot graphs of equations that correspond to straight-line graphs in the coordinate plane; use the form $y = mx + c$ to identify parallel lines; find the equation of the line through two given points, or through one point with a given gradient.	1153 1312 1314
A10	Identify and interpret gradients and intercepts of linear functions graphically and algebraically.	
A17 [a, b]	Solve linear equations in one unknown algebraically (including those with the unknown on both sides of the equation); find approximate solutions using a graph.	
R14 [b, c]	Interpret the gradient of a straight line graph as a rate of change; recognise and interpret graphs that illustrate direct and inverse proportion.	
A14 [b, c]	Plot and interpret graphs (including reciprocal graphs) and graphs of non-standard functions in real contexts, to find approximate solutions to problems such as simple kinematic problems involving distance, speed and acceleration.	1322 1323
G1 [b - d]	Use conventional terms and notations: points, lines, vertices, edges, planes, parallel lines, perpendicular lines, right angles, polygons, regular polygons and polygons with reflection and/or rotation symmetries; use the standard conventions for labelling and referring to the sides and angles of triangles; draw diagrams from written description.	1078 1098 1106
G12	Identify properties of the faces, surfaces, edges and vertices of: cubes, cuboids, prisms, cylinders, pyramids, cones and spheres.	
G13	Construct and interpret plans and elevations of 3D shapes.	
A5 [b]	Understand and use standard mathematical formulae; rearrange formulae to change the subject.	1137 1138
R12 [a, b, e]	Compare lengths, areas and volumes using ratio notation; make links to similarity including (including trigonometric ratios) and scale factors.	1139 1246
G14 [a, b, d - f]	Use standard units of measure and related concepts (length, area, volume/capacity, mass, time, money, etc).	
G16 [a, b]	Know and apply formulae to calculate: area of triangles, parallelograms, trapezia; volume of cuboids and other right prisms (including cylinders).	
A5 [b]	Understand and use standard mathematical formulae; rearrange formulae to change the subject.	1107 1122
G17 [a - e]	Know the formulae: circumference of a circle = $2\pi r = \pi d$, area of a circle = πr^2 ; calculate: perimeters of 2D shapes, including circles; areas of circles and composite shapes. Surface area and volume of spheres, pyramids, cones and composite solids.	1136
S4 [c, g, h - l, m, n]	Interpret, analyse and compare the distributions of data sets from univariate empirical distributions through: - appropriate graphical representation involving discrete, continuous and grouped data - appropriate measures of central tendency (median, mean, mode and modal class) and spread (range, including consideration of outliers).	1193 1196

S4 [a - f, g, l, m, n]	Interpret, analyse and compare the distributions of data sets from univariate empirical distributions through: - appropriate graphical representation involving discrete, continuous and grouped data - appropriate measures of central tendency (median, mean, mode and modal class) and spread (range, including consideration of outliers). Apply statistics to describe a population.	1201 1202
S5		
A17 [a, b]	Solve linear equations in one unknown algebraically (including those with the unknown on both sides of the equation); find approximate solutions using a graph. Apply statistics to describe a population. Use and interpret scatter graphs of bivariate data; recognise correlation and know that it does not indicate causation; draw estimated lines of best fit; make predictions; interpolate and extrapolate apparent trends whilst knowing the dangers of so doing.	1213 1250
S5		
S6		
S2 [c - g]	Interpret and construct tables, charts and diagrams, including frequency tables, bar charts, pie charts and pictograms for categorical data, vertical line charts for ungrouped discrete numerical data, tables and line graphs for time series data and know their appropriate use.	1198
N7 [c]	Calculate with roots, and with integer indices.	1033 1924
N8 [b, d, e]	Calculate exactly with fractions and multiples of π .	1017 1040 1047
N9	Calculate with and interpret standard form $A \times 10^n$, where $1 \leq A < 10$ and n is an integer.	1049 1050 1051