Year 7 Support SOW

Chapter	Lesson
HT1	
1 Using numbers	1.1 The calendar
	1.2 The 12-hour and 24-hour clocks
	1.3 Managing money
	1.4 Positive and negative numbers
	1.5 Adding negative numbers
	1.6 Subtracting negative numbers
	Problem solving – Where in the UK?
2 Sequences	2.1 Function machines
	2.2 Sequences and rules
	2.3 Finding terms in patterns
	2.4 The square numbers
	2.5 The triangular numbers
	Mathematical reasoning – Valencia Planetarium
3 Perimeter and area	3.1 Length and perimeter
	3.2 Area
	3.3 Perimeter and area of rectangles
	Problem solving – Design a bedroom
HT2	
4 Decimal numbers	4.1 Multiplying and dividing by 10, 100 and 1000
	4.2 Ordering decimals
	4.3 Estimates
	4.4 Adding and subtracting decimals
	4.5 Multiplying and dividing decimals
	Financial skills – Shopping for leisure
5 Working with numbers	5.1 Square numbers
	5.2 Rounding
	5.3 Order of operations
	5.4 Long and short multiplication
	5.5 Long and short division
	5.6 Calculations with measure-ments
	Problem

	solving – What is your carbon footprint?
6 Statistics	6.1 Mode, median and range
	6.2 Reading data from tables and charts
	6.3 Using a tally chart
	6.Using data
	6.5 Grouped frequency
	6.6 Data collection
	Challenge – Trains in Europe
HT3	
7 Algebra	7.1 Expressions and substitution
	7.2 Simplifying expressions
	7.3 Using formulae
	7.4 Writing formulae
	Problem solving –Winter sports
8 Fractions	8.1 Equivalent fractions
	8.2 Comparing fractions
	8.3 Adding and subtracting fractions
	8.4 Mixed numbers and improper fractions
	8.5 Calculations with mixed numbers
	Challenge – Fractional dissection
9 Angles	9.1 Using the compass to give directions
	9.2 Measuring angles
	9.3 Drawing angles
	9.4 Calculating angles
	9.5 Properties of triangles and quadrilaterals
	Investigation – Snooker tables
HT4	
10 Coordinates and graphs	10.1 Coordinates and graphs
	10.2 From mappings to graphs
	10.3 Naming graphs
	10.4 Graphs from the real world
	Challenge – Global warming
11 Percentages	11.1 Fractions and percentages
	11.2 Fractions of a quantity

	11.3 Percentages of a quantity
	11.4 Percentages with a calculator
	11.5 Percentage increases and decreases
	Financial skills – Income tax
12 Probability	12.1 Probability words
	12.2 Probability scales
	12.3 Experimental probability
	Financial skills – School Easter Fayre
HT5	
13 Symmetry	13.1 Line symmetry
	13.2 Rotational symmetry
	13.3 Reflections
	13. 4 Tessellations
	Activity – Landmark spotting
14 Equations	14.1 Finding unknown numbers
	14.2 Solving equations
	14.3 Solving more complex equations
	14.4 Setting up and solving equations
	Challenge –Number puzzles
15 Interpreting data	15.1 Pie charts
	15.2 Comparing data by median and range
	15.3 Statistical surveys
	Challenge – Dancing competition
HT6	
16 3D shapes	16.1 3D shapes and nets
	16.2 Using nets to construct 3D shapes
	16.3 3D investigations
	Problem solving – Delivering packages
17 Ratio	17.1 Introduction to ratios
	17.2 Simplifying ratios
	17.3 Ratios and sharing
	17.4 Ratios and fractions
	Problem solving –Smoothie bar

staff are expected to conduct end of chapter tests

Year 8 High SOW

Chapter	Lesson
HT1	
1 Working with numbers	1.1 Multiplying and dividing negative numbers
	1.2 Factors and highest common factor (HCF)
	1.3 Multiples and lowest common multiple (LCM)
	1.4 Powers and roots
	1.5 Prime factors
	Challenge –Blackpool Tower
2 Geometry	2.1 Parallel lines
	2.2 The geometric properties of quadrilaterals
	2.3 Translations
	2.4 Enlargements
	2.5 Constructions
	Challenge – More constructions
3 Probability	3.1 Mutually exclusive outcomes and exhaustive outcomes
	3.2 Using a sample space to calculate probabilities
	3.3 Estimates of probability
	Financial skills – Fun in the fairground
HT2	
4 Percentages	4.1 Calculating percentages
	4.2 Calculating percentage increases and decreases
	4.3 Calculating a percentage change
	Challenge – Changes in population
5 Congruent shapes	5.1 Congruent shapes
	5.2 Congruent triangles
	5.3 Using congruent triangles to solve problems
	Problem solving – Using scale diagrams to work out distances
6 Surface area and volume of prisms	6.1 Metric units for area and volume
	6.2 Surface area of prisms
	6.3 Volume of prisms
	Investigation – A cube investigation
HT3	
7 Graphs	7.1 Graphs from linear equations
	7.2 Gradient (steepness) of a straight line
	7.3 Graphs from quadratic equations

	7.4 Real-life graphs
	Challenge – The M25
8 Number	8.1 Powers of 10
	8.2 Significant figures
	8.3 Standard form with large numbers
	8.4 Multiplying with numbers in standard form
	Challenge – Space – to see where no one has seen before
9 Interpreting data	9.1 Interpreting graphs and diagrams
	9.2 Relative sized pie charts
	9.3 Scatter graphs and correlation
	9.4 Creating scatter graphs
	Challenge – Football attendances
HT4	
10 Algebra	10.1 Algebraic notation
	10.2 Like terms
	10.3 Expanding brackets
	10.4 Using algebraic expressions
	10.5 Using index notation
	Mathematical reasoning – Writing in algebra
11 Shape and ratio	11.1 Ratio of lengths, areas and volumes
	11.2 Fractional enlargement
	11.3 Map scales
	Activity – Map reading
HT5	
12 Fractions and decimals	12.1 Adding and subtracting fractions
	12.2 Multiplying fractions and integers
	12.3 Dividing with integers and fractions
	12.4 Multiplication with large and small numbers
	12.5 Division with large and small numbers
	Challenge –Guesstimates
13 Proportion	13.1 Direct proportion
	13.2 Graphs and direct proportion
	13.3 Inverse proportion
	13.4 Comparing direct proportion and inverse proportion

	Challenge – Planning a trip
14 Circles	14.1 The circumference of a circle
	14.2 Formula for the circumference of a circle
	14.3 Formula for the area of a circle
	Financial skills – Athletics stadium
HT6	
15 Equations	15.1 Equations with brackets
	15.2 Equations with the variable on both sides
	15.3 More complex equations
	15.4 Rearranging formulae
	Mathematical reasoning – Using graphs to solve equations
16 Comparing data	16.1 Grouped frequency tables
	16.2 Drawing frequency diagrams
	16.3 Comparing sets of data
	16.4 Misleading charts
	Problem solving – Why do we use so many devices to watch TV?

Year Group	Y9 Higher
HT1	Rounding and approximations
	LCM, HCF and prime numbers
	Percentages
	Expressions
	Standard form
HT2	Fractions
	Statistics: Draw and interpret Charts
	Linear Equations
	linear inequalities
	Subject of a formula
HT3	Linear graphs
	Pythagoras' theorem.
	Trigonometry in 2D
HT4	Factorising and solving quadratics
	Quadratic and Cubic Graphs
	Polygons
HT5	Ratio and proportion
	Circles and Sectors
	Volume and surface area
	Compound units
HT6	Sequences
	Simultaneous Equations
	Exploring and applying probability
	Vectors
	Functions

Y9 Foundation
Rounding / Approximations
LCM, HCF and prime numbers
Percentages
Expressions
Standard form
Fractions
Statistics: Draw and interpret Charts
Linear Equations
linear inequalities
Subject of a formula
Linear graphs
Surds
Pythagoras' theorem.
Trigonometry
Expressions and quadratic equations
Quadratic and Cubic Graphs
Polygons
Ratio and proportion
Circles and Sectors
Area and volume
Compound units
Sequences
Simultaneous linear equations
Probability
Probability: Combined events
Vectors
Functions

Y10 Higher SOW

HT1
Cumulative frequency and box plots
Histograms
Negative / fractional Indices
Recurring decimals.
Surds

HT2
Vector geometry
Circle theorems
Linear graphs
Inequalities and regions

HT3
Factorising quadratics
Solving quadratic equations
Algebraic fractions
Iteration

HT4
Quadratic Sequences
Approximation and bounds
Probability
Sampling

HT5
Direct / Inverse proportion
Velocity/ Distance–time graph
Estimating area under a curve
Rates of change

HT6
simultaneous equations (one non-linear)
Geometric Progression
Functions
Trigonometry in non- right angled triangles
Proofs

Y10 Foundation SOW

HT1
Statistics: Tables and averages
Statistics: Draw and interpret Charts
FDP and recurring decimals
LCM, HCF and prime numbers
Surds

HT2
Vectors
Angles
Linear graphs
Linear Equations / Inequalities
Simultaneous Equations

HT3
Algebra: Expressions and equations
Powers and standard form
Perimeter, area and volume

HT4
Sequences
Approximations
Probability
Probability: Combined events

HT5
Ratio and proportion
Distance–time graphs
Velocity–time graph
Non -Linear Graphs
Constructions and loci

HT6
Pythagoras' theorem.
Trigonometry in 2D
Percentages
Transformations
Similar Shapes

Y11 Higher SOW

HT1
Direct / Inverse proportion
Velocity/ Distance–time graph
Estimating area under a curve
Rates of change

HT2
simultaneous equations (one non-linear)
Geometric Progression
Functions
Trigonometry in non- right angled triangles
Trigonometric functions
Proofs

HT3
Cumulative frequency and box plots
Histograms
Negative / fractional Indices
Recurring decimals.
Surds

HT4
Vector geometry
Circle theorems
Linear graphs
Inequalities and regions
Quadratic inequalities

HT5
Factorising and solving quadratics
Solving quadratic equations using completing the square / Quadratic formula
Iteration
Probability
Transformation of graphs

Y11 Foundation SOW

HT1
Chapters
Approximations
Fractions
FDP and recurring decimals
LCM, HCF and prime numbers
Surds
Algebra: Expressions and equations

HT2
Linear graphs
Vectors
Angles
Linear Equations / Inequalities
Simultaneous Equations

HT3
Pythagoras' theorem.
Trigonometry in 2D
Percentages
Transformations
Similar Shapes

HT4
Powers and standard form
Perimeter, area and volume
Sequences

HT5
Ratio and proportion
Probability
Probability: Combined events