



Subject: Maths

Year 7	
Theme	Teaching
1	Calculations
2	Calculations <ul style="list-style-type: none"> Know divisibility tests for the 2,4,5, 8 and 10 times tables Know divisibility tests for the 3, 6 and 9 times tables. Use place value to multiply and divide by 0.1, 0.01, 0.001 etc. Multiply one decimal number by another using column multiplication (scale the problem up to integers first and back down again at the end). Divide decimal numbers by integers using long division. Understand and apply inverse operations to solve problems. Use estimates to check answers are reasonable. Use answers to one calculation to work out the answer for other related calculations (including division). Divide decimals by decimals using both long and short division. Understand that to divide by decimal numbers, equivalent fractions can be used to convert to an integer divisor. Multiply and divide integers by decimals (terminating) between 0 and 1 mentally e.g. 0.5, 0.25, 0.2.
3	Calculations
4	Calculations
5	Time <ul style="list-style-type: none"> Understand a leap year and know when they occur Understand the concept of different time zones and use these to convert between instantaneous times in different countries around the world. Understand how to write time in different forms e.g. 1 hour 45 minutes as 1 and 3/4 of an hour or 1.75 hours. Solve problems that involve conversions between adjacent units of time i.e. seconds to minutes or minutes to hours. Solve problems using timetables. Solve problems that involve conversions between non-adjacent units of time i.e. seconds to weeks or minutes to months. Include examples that have to take into account different numbers of days in each month and leap years. Solve complex planning problems that draw on other aspects of maths, e.g. planning a journey to another country to attend a meeting. Timings, costs, travel plans etc. all included.
6	Time
7	2D shape <ul style="list-style-type: none"> Identify a shape from given properties, such as line of symmetry, order of rotational symmetry, parallel sides, number of sides, angle properties etc. Understand and use the terms parallel and perpendicular accurately. Solve composite angle problems involving both triangles and quadrilaterals. Work out the angle sum within any regular or irregular polygon when given the number of sides. Work out the size of each individual interior and exterior angle within a regular polygon. Identify exterior and interior angles of polygons. Tessellate a shape, combinations of shapes. Identify which shapes tessellate.
8	2D shape
9	Number Sense <ul style="list-style-type: none"> Order fractions by converting to decimals/percentages. Convert a fraction to a percentage using a calculator. Convert a fraction to a percentage by writing them with a denominator of 100 and where this isn't possible, converting them to a decimal number first. Convert a decimal number to a fraction. Convert a decimal number to a percentage. Multiply and divide using negative numbers. Add and subtract with negative numbers. Convert fractions to decimals accurately with a calculator. Order fractions by writing them with a common denominator (including negative fractions). Represent a given inequality on a number line. Create an inequality from information shown on a number line. Convert fluently between fractions, decimals and percentages with and without a calculator. Convert fractions to recurring decimals with and without a calculator and understand recurring decimal notation. Complete the four operations fluently with negative numbers in context.
10	Number Sense
11	Number Sense
12	Algebraic Notation <ul style="list-style-type: none"> Write an expression from a problem. Multiply out linear expressions with brackets. Understand and simplify expressions through multiplication and division with more than one variable. Understand and simplify expressions through multiplication and division with one variable. Understand and simplify expressions (addition and subtraction) with more than one variable by collecting like terms. Understand and simplify expressions (addition and subtraction) with one variable by collecting like terms. Understand the difference between variables, expressions and terms. Use correct algebraic notation to represent unknown numbers or variables. Factorise any expression into a single bracket. Expand and simplify expressions containing more than one single bracket.
13	Algebraic Notation
14	Fractions <ul style="list-style-type: none"> Multiply and divide with mixed numbers Add and subtract with mixed numbers. Multiply and divide a fraction by a fraction. Multiply and divide an integer by a fraction. Multiply and divide a fraction by an integer. Use calculator and non-calculator methods to find a fraction of an amount. Multiply fractions such as $1/2 \times 1/3$ relating them to 'a half of a third'. Understand mental arithmetic methods for multiplying and dividing by terminating decimal values between -1 and 1, linking this to fractions.
15	Fractions
16	Review Week <p>This will be spent catching reviewing any gaps from the topics studied up to this point.</p>
17	Assessment Week <p>This includes a revision lesson, 2 lessons for the assessment and a lesson to review the assessment.</p>
18	Formulae <ul style="list-style-type: none"> Interpret the information from substituting into a formula. Set up and substitute into a formula from given information. Set up a formula from given information. Substitute into a formula with negative integer values with and without a calculator. Substitute into a formula with fractional values with and without a calculator. Substitute into a formula with decimals with and without a calculator. Understand the difference between a variable, term, expression and formula. Rearrange a two step formula. Rearrange a one step formula.
19	Formulae

Year 7	
Theme	Teaching
20	Rounding and Estimating <ul style="list-style-type: none"> Solve real life problems using estimations and rounding (everything rounded to 1 s.f.). Round any decimal number to a given number of significant figures (including numbers between -1 and 1). Round any whole number to a given number of significant figures. Round any number to a given number of decimal places. Express error intervals using inequalities. Understand the difference in the way the upper bound is expressed for discrete and continuous data. Identify upper and lower bounds.
21	Rounding and Estimating
22	Measure <ul style="list-style-type: none"> Draw and interpret scale drawings. Convert numbers using a given scale and or scale factor. Know how to read a map scale and create scales. Convert between metric and imperial measures when given the conversion. Convert between non-adjacent metric units, e.g. kilometres to centimetres. Construct a triangle given three sides, two angles and a side and two sides and the included angle.
23	Measure
24	Equations <ul style="list-style-type: none"> Substitute answers back into equations to check solutions. Set up and solve a one step equation Solve a one step linear equation Understand the meaning of the equals sign and its role in mathematics. Understand the meaning of and difference between a variable, coefficient, term, expression, formulae and equation. Set up and solve multi-step equations in a given context. Solve a 2 step equation involving expanding a bracket. Simplify and solve an equation. Solve any linear 2 step equation.
25	Equations
26	Percentages <ul style="list-style-type: none"> Solve real-life problems using percentages. Increase or decrease a quantity by a percentage using a calculator using the multiplier method. Find any percentage of a given quantity using a calculator using the multiplier method. Increase or decrease a quantity by a percentage without a calculator. Find any percentage of a given quantity without a calculator. Express a change in quantity as a percentage change. Express one quantity as a percentage of another.
27	Percentages
28	Percentages
29	Assessment Week <p>This includes a revision lesson, 2 lessons for the assessment and a lesson to review the assessment.</p>
30	Review Week <p>This will be spent catching reviewing any gaps from the topics studied up to this point.</p>
31	Coordinates <ul style="list-style-type: none"> Plot and read coordinates in all four quadrants. Use coordinates with the properties of shapes to solve problems for missing vertices of shapes on a set of axes. Draw lines parallel to the axis and understand how to write their equations. Find the midpoint of a pair of coordinates Understand that there is a third dimension and this is represented by a z coordinate Know and understand what a plane is. Plot and write coordinates in 3 dimensions. Solve coordinate problems that use coordinates in 3 dimensions.
32	Coordinates
33	Area and Perimeter <ul style="list-style-type: none"> Solve problems linking to other contexts such as cost of a gardening project that draw on using area and perimeter. Find a missing length when given the area or perimeter and other lengths including with triangles. Write an algebraic expression for the area/perimeter of a shape. Convert to consistent units of measurement within the metric system where necessary to solve area and perimeter problems. Know that when solving area and perimeter problems, the units of measurement must be consistent. Find a missing length when given the area or perimeter and other lengths including with trapezia. Set up and solve equations linked to the area and perimeter of shapes. Find the area of a trapezium and learn the formula.
34	Area and Perimeter
35	Area and Perimeter
36	Catch up/Review/problem solving <p>These weeks are to be used to catch up any content not yet covered, review the content from Y7 thus far and fill any gaps, and develop problem solving skills through rich tasks.</p>
37	Catch up/Review/problem solving
38	3D Shape <ul style="list-style-type: none"> Construct isometric drawings of 3D objects. Draw the net of a 3D object. Draw plans and elevations for 3D objects. Find the surface area of a cuboid and a right angled triangular prism.
39	3D Shape



Subject: Maths

Year 8		Year 8	
Theme	Teaching	Theme	Teaching
1	Types of Number	20	Averages and Range
2	Types of Number	21	Averages and Range
3	Types of Number	22	Area and Perimeter
4	Assessment Week	23	Area and Perimeter
5	Algebraic Expressions	24	Area and Perimeter
6	Algebraic Expressions	25	Proportion
7	Transformations	26	Proportion
8	Transformations	27	Review Week
9	Transformations	28	Assessment Week
10	Probability	29	Angles, Polygons and Parallel lines
11	Probability	30	Angles, Polygons and Parallel lines
12	Equations	31	Angles, Polygons and Parallel lines
13	Equations	32	Formulae
14	Ratio	33	Formulae
15	Ratio	34	Kinematics
16	Fractions, Decimals and Percentages	35	Kinematics
17	Fractions, Decimals and Percentages	36	Sequences
18	Assessment Week	37	Sequences
19	Review Week	38	Surface Area and Volume
		39	Surface Area and Volume



Subject: Maths

Year 9		Year 9	
Theme	Teaching	Theme	Teaching
1	Types of Number	20	Averages
2	Types of Number	21	Revision, Assessment and Review
3	Types of Number	22	Fractions and Ratio
4	Equations and Inequalities	23	Fractions and Ratio
5	Equations and Inequalities	24	Constructions and Congruence
6	Bearings and Scale Drawings	25	Constructions and Congruence
7	Revision, Assessment and Review	26	Linear Graphs
8	Bearings and Scale Drawings	27	Linear Graphs
9	Decimals	28	Data, Sampling and Bias
10	Decimals	29	Compound and Reverse Percentages
11	Algebraic Expressions	30	Compound and Reverse Percentages
12	Algebraic Expressions	31	Simultaneous Equations
13	Frequency Diagrams	32	Simultaneous Equations
14	Frequency Diagrams	33	Pythagoras
15	Review Week	34	Pythagoras
16	Area and Perimeter	35	Revision, Assessment and Review
17	Area and Perimeter	36	Pie Charts and Scatter Graphs
18	Area and Perimeter	37	Pie Charts and Scatter Graphs
19	Averages	38	Kinematic Graphs
		39	Kinematic Graphs