

Year 7 Programme of work				
Start Dates	Chapter Title	Main content	National Curriculum Mapping	Other Lessons
08-Sep	Caterpillar Chains and Sequences Work (not Nth Term) ready to start Algebra 1 in new sets			
Initial Assessment Test (week of 8th Sept)				
follow on	Algebra 1	Sequences and Functions	*generate terms of a sequence from either a term-to-term or a position-to-term rule, recognise arithmetic sequences and find the nth term, recognise geometric sequences and appreciate other sequences that arise.	Snakes Alive
29-Sep	Number 1 inc. calc. week	Calendar Clocks, Place Value, Integers, Calculations. Addition, Subtraction, Multiplication, Division	*use standard units of mass, length, time, money and other measures, including with decimal quantities * recognise and use relationships between operations including inverse operations *understand and use place value for decimals, measures and integers of any size *order positive and negative integers, decimals and fractions; use the number line as a model for ordering of the real numbers; use the symbols =, ≠, <, >, ≤, ≥	Bowland Task either - Youth Hostel or The Z Factor Use the school canteen menu to practice using money and budgetting
20-Oct	Geometry 1	Mensuration, units, 3-D shapes.	*use the properties of faces, surfaces, edges and vertices of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres to solve problems in 3-D *derive and apply formulae to calculate and solve problems involving: perimeter and area of triangles, parallelograms, trapezia, volume of cuboids (including cubes) and other prisms (including cylinders) *use standard units of mass, length, time, money and other measures, including with decimal quantities *change freely between related standard units [for example time, length, area, volume/capacity, mass]	Bowland Task either - Fish Dish or Patchwork Cushions
Test week (date TBC)				
17-Nov	Number 2	Fractions, decimals, percentages.	* express one quantity as a fraction of another, where the fraction is less than 1 and greater than 1 *interpret fractions and percentages as operators *define percentage as 'number of parts per hundred', interpret percentages and percentage changes as a fraction or a decimal, interpret these multiplicatively, express one quantity as a percentage of another, compare two quantities using percentages, and work with percentages greater than 100% *use the four operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative *solve problems involving percentage change, including: percentage increase, decrease and original value problems and simple interest in financial mathematics	
01-Dec	Statistics 1	Probability	*generate theoretical sample spaces for single and combined events with equally likely, mutually exclusive outcomes and use these to calculate theoretical probabilities. *record, describe and analyse the frequency of outcomes of simple probability experiments involving randomness, fairness, equally and unequally likely outcomes, using appropriate language and the 0-1 probability scale *understand that the probabilities of all possible outcomes sum to 1	
Therapy and re-test weeks at end of December and start of January				
06-Jan	Algebra 2	Equations, Formulae and Identities.	*use and interpret algebraic notation, including: ab in place of $a \times b$, 3y in place of $y + y + y$ and $3 \times y$, a2 in place of $a \times a$, a3 in place of $a \times a \times a$; a2b in place of $a \times a \times b$, a/b in place of $a \div b$. coefficients written as fractions rather than as decimals , brackets *substitute numerical values into formulae and expressions, including scientific formulae *understand and use the concepts and vocabulary of expressions, equations, inequalities, terms and factors *understand and use standard mathematical formulae; rearrange formulae to change the subject *use algebraic methods to solve linear equations in one variable (including all forms that require rearrangement)	
19-Jan	Geometry 2	Geometrical Reasoning, co-ordinates, angles.	*apply the properties of angles at a point, angles at a point on a straight line, vertically opposite angles *understand and use the relationship between parallel lines and alternate and corresponding angles	Bowland Task either - Rods and Triangles or Three of a Kind
09-Feb	Statistics 2	Data Interpretation	*describe, interpret and compare observed distributions of a single variable through: appropriate graphical representation involving discrete, continuous and grouped data; and appropriate measures of central tendency (mean, mode, median) and spread (range, consideration of outliers)	
Test week (date TBC)				
02-Mar	Number 3	BODMAS, Calculations, Place Value.	*understand and use place value for decimals, measures and integers of any size *use conventional notation for the priority of operations, including brackets, powers, roots and reciprocals	Bowland Task either - Ice Cream or Security Camera or Fares not Fair!
23-Mar	Algebra 3	Integers, Powers and roots.	*model situations or procedures by translating them into algebraic expressions or formulae and by using graphs	
Therapy and re-test weeks at end of March and after Easter Holidays				
20-Apr	Geometry 3	Symmetry, construction and properties of shape.	*describe, sketch and draw using conventional terms and notations: points, lines, parallel lines, perpendicular lines, right angles, regular polygons, and other polygons that are reflectively and rotationally symmetric *draw and measure line segments and angles in geometric figures, including interpreting scale drawings *derive and 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); recognise and use the perpendicular distance from a point to a line as the shortest distance to the line *derive and illustrate properties of triangles, quadrilaterals, circles, and other plane figures [for example, equal lengths and angles] using appropriate language and technologies *use the standard conventions for labelling the sides and angles of triangle ABC, and know and use the criteria for congruence of triangles	
05-May	Number 4	Ratio and proportion.	*solve problems involving direct and inverse proportion, including graphical and algebraic representations *understand that a multiplicative relationship between two quantities can be expressed as a ratio or a fraction *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 *use ratio notation, including reduction to simplest form *use scale factors, scale diagrams and maps	
Test week (date TBC)				
18-May	Geometry 4	Transformations.	*identify properties of, and describe the results of, translations, rotations and reflections applied to given figures *identify and construct congruent triangles, and construct similar shapes by enlargement, with and without coordinate grids	
08-Jun	Statistics 3	Data collection and analysis.	*describe simple mathematical relationships between two variables (bivariate data) in observational and experimental contexts and illustrate using scatter graphs. *construct and interpret appropriate tables, charts, and diagrams, including frequency tables, bar charts, pie charts, and pictograms for categorical data, and vertical line (or bar) charts for ungrouped and grouped numerical data	Bowland Task either - Counting Trees or Day Out or Tuck Shop Words, Words, Words
Therapy and re-test weeks in June				
22-Jun	Algebra 4	Graphs.	*model situations or procedures by translating them into algebraic expressions or formulae and by using graphs	