Year 7 Key Objectives
Taken from the National Curriculum

1	understand and use place value for decimals, measures and integers of any size
2	order positive and negative integers, decimals and fractions
3	use the symbols =, ≠, <, >, ≤, ≥
4	use the concepts and vocabulary of prime numbers, factors (or divisors), multiples, highest common factor, lowest common multiple, prime factorisation
5	use the 4 operations, including formal written methods, applied to integers, decimals, all both positive and negative
6	use conventional notation for the priority of operations, including brackets and powers
7	define percentage as 'number of parts per hundred', express 1 quantity as a percentage of another, compare 2 quantities using percentages, and work with percentages greater than 100%
8	use standard units of mass, length, time, money and other measures, including with decimal quantities
9	round numbers and measures to an appropriate degree of accuracy
10	use a calculator and other technologies to calculate results accurately and then interpret them appropriately
11	use and interpret algebraic notation, including: ab in place of a × b; 3y in place of 3 × y; a² in place of a × a; a/b in place of a ÷ b
12	substitute numerical values into formulae and expressions
13	simplify algebraic expressions to maintain equivalence by: collecting like terms
14	use algebraic methods to solve linear equations in 1 variable
15	work with coordinates in all 4 quadrants
16	generate terms of a sequence from either a term-to-term or a position-to-term rule
17	change freely between related standard units
18	express 1 quantity as a fraction of another
19	use ratio notation, including reduction to simplest form
20	divide a given quantity into 2 parts in a given part:part or part:whole ratio; express the division of a quantity into 2 parts as a ratio
21	calculate and solve problems involving: perimeters of 2-D shapes (including circles), areas of circles and composite shapes
22	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
23	derive and illustrate properties of triangles, quadrilaterals, circles, and other plane figures using appropriate language and technologies
24	identify properties of, and describe the results of, translations, rotations and reflections applied to given figures
25	apply the properties of angles at a point, angles at a point on a straight line, vertically opposite angles
26	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
27	understand that the probabilities of all possible outcomes sum to 1
28	generate theoretical sample spaces for single and combined events with equally likely, mutually exclusive outcomes and use these to calculate theoretical probabilities
29	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)
30	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

Year 7 Key Objectives
Summarised form

1	Use place value for numbers of any size, including decimals
2	Order positive and negative numbers, decimals and fractions
3	Use the symbols =, ≠, <, >, ≤, ≥
4	Describe features such as prime numbers, factors, multiples, highest common factor, lowest common multiple and prime factorisation
5	Use the 4 operations with all numbers, including decimals
6	Know and use the order of operations, including brackets and powers
7	Use percentages to describe one quantity in relation to another, including percentages over 100%
8	Use standard units of measure, including with decimal quantities
9	Round numbers and measures to an appropriate degree of accuracy
10	Use a calculator to calculate results accurately and then interpret them appropriately
11	Use and understand algebraic notation including ab, $3c$, d^2 and e/f
12	Substitute values into formulae and expressions
13	Simplify algebraic expressions by collecting like terms
14	Use algebra to solve linear equations with one unknown value
15	Work with coordinates in all 4 quadrants
16	Generate terms of a sequence from a term-to-term or a position-to-term rule
17	Convert measures between standard units
18	Express one quantity as a fraction of another
19	Use ratio notation, including in simplest form
20	Divide a quantity into 2 parts in a given ratio (and find a ratio to describe a quantity divided into two parts)
21	Calculate and solve problems involving: perimeters of 2-D shapes (including circles), areas of circles and composite shapes
22	Describe, sketch and draw points, lines, parallel lines, perpendicular lines, right angles and regular polygons
23	Find and show the properties of triangles, quadrilaterals and circles using appropriate vocabulary
24	Describe the results of translations, rotations and reflections
25	Apply properties of angles at a point, angles on a straight line, and vertically opposite angles
26	Record, describe and measures the frequency of outcomes in simple probability experiments
27	Understand that the probabilities of all possible outcomes add up to 1
28	Use sample space diagrams to find all the possible outcomes of 2 events
29	Use graphs, all three averages and the range to compare and interpret sets of data
30	Construct and interpret tables and charts, including bar charts, line graphs and pie charts for grouped and ungrouped data