Unit Number	Unit Name	Year 8 Topics Covered
1	Powers of 10	Place value and powers of 10 Convert between ordinary and standard form Calculations with standard form
2	Calculations and Accuracy	Convert from one metric unit to another Imperial and metric unit conversion Round to a given number of significant figures Estimate answers to calculations (no powers/roots) Find upper and lower bounds Inequality notation for bounds
3	Using and Interpreting Data	Find the mean, median, mode and range for a set of numbers Calculate averages from a frequency table Estimate the mean from a grouped frequency table
4	Sequences and Linear Graphing	Find the nth term of arithmetic sequences Recognise and use Fibonacci style sequences Understand the difference between arithmetic and geometric sequences Conversion graphs Use co-ordinates in all four quadrants Find the midpoint of a line Complete a table of values and draw graphs of the form y = mx + c Use y = mx + c to find the gradient and intercepts of a line Calculate the gradient of a line
5	Transformations	Line and rotational symmetry Reflect shapes in the axes of a graph Reflect shapes in lines such as x = 2 and y = -3 Reflect objects in the lines y = x and y = -x Rotate shapes about any point Translate a shape by a vector Enlarge a shape by a positive scale factor (including fractional)
6	Quadratics	Expanding double brackets Factorise double brackets DOTS Single or double bracket factorisation
7	Pythagoras	Use Pythagoras' Theorem to calculate the hypotenuse Use Pythagoras' Theorem to calculate shorter lengths Use Pythagoras' Theorem to calculate the distance between co-ordinates

8	Special Quadrilaterals and Polygons	Properties of triangles Properties of quadrilaterals Calculate the area of rectilinear shapes Calculate the area and perimeter of triangles Calculate the area and perimeter of compound shapes Properties of trapezia, parallelograms, rhombus, and kites (including angles) Calculate the area and perimeter of parallelograms Calculate the area and perimeter of trapezia Calculate the area and perimeter of compound shapes Calculate interior and exterior angles in regular polygons Tessellations Angles in parallel lines
9	Circles	Label parts of a circle Calculate the area and circumference of a circle Calculate the area of sectors and lengths of arcs
10	Further Percentages	Percentage increase and decreases (non-calculator) Percentage increase and decreases (calculator) Reverse percentages Appreciation and depreciation (and simple interest)