



		Autumn Term		Spring Term		Summer Term	
Year 7 Stage 7	Topic Big question / Overview	<p>Exploring FDP Convert between terminating decimals and fractions.</p> <p>Numbers and the number system Use positive integer powers and associated real roots.</p> <p>Calculating part 1 Apply the four operations, including formal written methods, to integers and decimals.</p>	<p>Calculating part 2 Apply the four operations with negative numbers.</p> <p>Checking, approximating and estimating Check calculations using inverse operations.</p> <p>Counting and comparing order positive and negative integers, decimals and fractions.</p>	<p>Visualising and constructing Use conventional terms and notation for geometry.</p> <p>Investigating properties of shapes Investigate the properties of 3D shapes.</p> <p>Algebraic proficiency: tinkering Simplify and manipulate expressions by collecting like terms.</p> <p>Exploring fractions, decimals and percentages Write a quantity as a fraction or percentage of another.</p>	<p>Proportional reasoning use ratio notation, including reduction to simplest form.</p> <p>Measuring space Measure accurately Convert between measures.</p>	<p>Calculating fractions, decimals and percentages Use multiplicative reasoning to interpret percentage change.</p> <p>Solving equations and inequalities Solve linear equations in one unknown.</p> <p>Calculating space Calculate surface area of cubes and cuboids.</p>	<p>Presentation of Data Construct and interpret graphs.</p> <p>Measuring data Analyse and compare sets of data</p>
	Disciplinary knowledge/skills	Reasoning and problem solving with numbers and calculations.	Problem solving involving checking and comparing.	Reasoning and problem-solving involving shapes, algebra and FDP.	Developing proportional reasoning skills.	Forming and solving equations or calculating areas.	Representing and interpreting data - using measures of spread and averages to analyse data.
	New vocabulary	Terminating Recurring Simplify, Cancel LCM HCF Power Square and cube root Triangular number, Square number, Cube number, Prime number Linear sequence, Arithmetic sequence Operation Inverse	Negative number Directed number Improper fraction Power Indices Roots Approximate (noun and verb) Round Decimal place Solution Answer Estimate (noun and verb) Order of magnitude Accurate, Accuracy Significant figure Integer Numerator Denominator	Edge, Face, Vertex (Vertices) Plane Parallel Perpendicular Regular polygon Algebra Expression, Term, Formula (formulae), Equation, Function, Variable Mapping diagram, Input, Output Represent Substitute Evaluate Like terms Simplify / Collect Proper fraction Vulgar fraction	Ratio Proportion Compare, comparison Part Simplify Cancel Lowest terms Unit Tonne, kilogram, gram, milligram Litre, millilitre Hour, minute, second Inch, foot, yard Pound, ounce Pint, gallon Line segment	Multiplier Increase, decrease Equation Operation Solve Solution Brackets Symbol Substitute Formula, formulae Length, breadth, depth, height, width	Discrete data Pictogram, Symbol, Key Frequency Table, Frequency table Time graph, Time series Bar-line graph, Vertical line chart Scale, Graph Axis, axes Average Spread Consistency Mean Median Mode Range Measure Data Statistic Statistics Approximate Round