

## Year 7 Course Overview

### Chapter 1 – Algebra 1

- Sequences
- Functions and mapping
- Introducing symbol representation

### Chapter 2 – Number 1

- Decimals
- Directed Numbers
- Estimation
- Addition and subtraction

### Chapter 3 – Shape, Space and Measure 1

- Length, Perimeter and Area
- 3D shapes
- Surface area and volume of cubes and cuboids

### Chapter 4 – Number 2

- Fractions
- Decimals
- Adding and subtracting fractions

### Chapter 5 – Handling Data 1

- Mode, median and range
- Mean
- Statistical diagrams
- Probability
- Experimental Probability

### Chapter 6 – Algebra 2

- Rules of Algebra
- Simplifying expressions
- Formulae
- Equations

### Chapter 7 – Shape, Space and Measure 2

- Vocabulary of lines and angles
- Calculating angles
- Coordinates

### Chapter 8 – Handling Data 2

- Using a tally chart
- Grouped frequencies
- Data collection

### Chapter 9 – Number and Measure 3

- Rounding
- The four operations
- BODMAS
- Long Multiplication and Division
- Efficient calculations
- Calculating with measurements

### Chapter 10 – Algebra 3

- Square numbers and square roots
- Triangular numbers
- Mappings to graphs
- Questions about graphs

### Chapter 11 – Shape, Space and Measure 3

- Measuring and drawing angles
- Constructions
- Solving geometrical problems

### Chapter 12 – Number 4

- Percentages
- Ratio and Proportion

### Chapter 13 – Algebra 4

- Solving 'brick wall' problems
- Solving circle square problems

### Chapter 14 – Shape, Space and Measure 4

- Line Symmetry
- Rotational Symmetry
- Reflections
- Rotations
- Translations
- Enlargements

### Chapter 15 – Handling Data 3

- Pie charts
- Comparing data
- Surveys
- Theoretical and experimental probability

### Chapter 16 – Number 5

- Adding and subtracting decimals
- Multiplying and dividing decimals
- Using a calculator
- Fractions of quantities
- Percentage of quantities

### Chapter 17 – Algebra 5

- Solving equations
- Formulae
- Dotty investigation
- Real world graphs
- Triangle and circle problems

### Chapter 18 – Shape, Space and Measure 5

- Polygons
- Tessellations
- Constructing 3D shapes