

# Yr 10

# GCSSE Course

## *Autumn Term*

### **N1 Properties of number**

- N1.1 Place value
- N1.2 Reading scales
- N1.3 Temperature
- N1.4 Calculating with negative numbers
- N1.5 Factors and multiples

### **S1 Length and area**

- S1.1 Measurement
- S1.2 Metric measures
- S1.3 Metric and imperial measures
- S1.4 Perimeter
- S1.5 Area

### **A1 Expressions**

- A1.1 Letter Symbols
- A1.2 Simplifying expressions
- A1.3 Collecting terms
- A1.4 Substitution
- A1.5 More substituting

### **N2 Whole number calculations**

- N2.1 Rounding
- N2.2 Mental addition and subtraction
- N2.3 Written addition and subtraction
- N2.4 Mental multiplication and division
- N2.5 Written multiplication and division

### **A2 Simple equations**

- A2.1 Function machines
- A2.2 Solving equations
- A2.3 Solving multiplication and division equations
- A2.4 The balance method
- A2.5 More solving equations

### **D1 Collecting data**

- D1.1 Data collection sheets
- D1.2 Observation, controlled experiment and sampling
- D1.3 Surveys
- D1.4 Grouped data
- D1.5 Two-way tables

## *Spring Term*

### **N3 Fractions, decimals and percentages**

- N3.1 Fractions
- N3.2 Equivalent fractions
- N3.3 Fractions and decimals
- N3.4 Fractions and percentages
- N3.5 Fractions, decimals and percentages

### **S2 Angles and coordinates**

- S2.1 Angles and lines
- S2.2 Measuring angles
- S2.3 Angle properties
- S2.4 Angles in a triangle
- S2.5 Coordinates



# Foundation

# Mathematics

## **D2 Displaying data**

- D2.1 Pictograms
- D2.2 Bar charts
- D2.3 Pie charts
- D2.4 Stem-and-leaf diagrams
- D2.5 Time series graphs

## **A4 Functions and graphs**

- A4.1 Coordinates in all four quadrants
- A4.2 Function machines
- A4.3 Drawing tables of values
- A4.4 Plotting graphs from tables of values
- A4.5 Horizontal and vertical lines

## **A3 Sequences**

- A3.1 Multiples and factors
- A3.2 Number sequences
- A3.3 Generating sequences
- A3.4 Describing sequences in words
- A3.5 Pattern sequences

## *Summer Term*

## **Examinations**

## **Course Work**

## **D3 Probability**

- D3.1 Language of probability
- D3.2 Probability scale
- D3.3 Equally likely outcomes
- D3.4 Calculating probabilities
- D3.5 Probably not

## **N4 Proportion**

- N4.1 Proportion
- N4.2 Direct proportion
- N4.3 Unitary method
- N4.4 Rates and tables
- N4.5 Conversion and exchange rates

## **S3 Transformations**

- S3.1 Reflections
- S3.2 Rotations
- S3.3 Translations
- S3.4 Reflection symmetry
- S3.5 Rotational symmetry

## **N5 Powers, roots and primes**

- N5.1 Squares and cubes
- N5.2 Square roots and cube roots
- N5.3 Powers of 10
- N5.4 Prime numbers
- N5.5 Factors and multiples

## **A5 Formulae**

- A5.1 Formulae in words
- A5.2 Writing formulae in words
- A5.3 Formulae using letters
- A5.4 More formulae
- A5.5 Substituting into formula

# Yr 11

## Autumn Term

### Reminder of D2

#### D5 Interpreting diagrams and charts

- D5.1 Pictograms and bar charts
- D5.2 Comparative bar charts
- D5.3 Pie charts
- D5.4 Stem-and-leaf diagrams
- D5.5 Time series graphs

### Course Work

#### S4 2-D and 3-D shapes

- S4.1 Properties of triangles
- S4.2 Properties of quadrilaterals
- S4.3 Congruent shapes
- S4.4 Circles
- S4.5 3-D shapes

#### N6 Decimal calculations

- N6.1 Order of operations
- N6.2 Estimation and rounding
- N6.3 Addition and subtracting decimals
- N6.4 Multiplying and dividing decimals
- N6.5 Calculator methods

#### A6 Linear equations

- A6.1 Solving simple equations
- A6.2 Two-step function machines
- A6.3 Inverse function machines
- A6.4 The balance method for two-step equations
- A6.5 Writing and solving equations

#### D4 Averages and range

- D4.1 Mean
- D4.2 Median
- D4.3 Mode and range
- D4.4 Charts and tables
- D4.5 Comparing data

### Examinations

## Spring Term

#### S5 Measuring and constructing

- S5.1 Lines and shapes
- S5.2 Constructing triangles
- S5.3 Scale
- S5.4 Bearings
- S5.5 Measuring instruments

#### N7 Using fraction and percentage

- N7.1 Fraction of a quantity
- N7.2 Fraction of a fraction
- N7.3 Percentage of a quantity
- N7.4 Percentage increase and decrease
- N7.5 Simple interest



# GCSE Course

## **S6 Perimeter, area and volume**

- S6.1 Circumference and area of a circle
- S6.2 Area of a rectangle and a triangle
- S6.3 Surface area
- S6.4 Volume
- S6.5 Units and dimensions

## **A7 More sequences**

- A7.1 Sequence patterns
- A7.2 More patterns
- A7.3 Sequence of numbers
- A7.4 More sequence of numbers
- A7.5 Generating sequences from an nth term

## **N8 Number problems**

- N8.1 Solving ratio problems
- N8.2 Solving word problems
- N8.3 Calculating with fractions and percentages
- N8.4 Checking procedures for solving problems
- N8.5 Calculator method

## *Summer Term*

## **S7 Further transformations**

- S7.1 More reflections
- S7.2 Rotating shapes
- S7.3 More translations
- S7.4 Enlargements
- S7.5 Enlarging shapes

## **D6 Further Probability**

- D6.1 Probability revision
- D6.2 Two-way tables
- D6.3 Expected frequency
- D6.4 Relative frequency
- D6.5 Two events

## **A8 Real-life graphs**

- A8.1 Conversion graphs
- A8.2 More conversion graphs
- A8.3 Drawing conversion graphs
- A8.4 Distance-time graphs
- A8.5 Speed from distance-time graphs

## **S8 Properties of shapes**

- S8.1 Properties of triangles and quadrilaterals
- S8.2 Polygons
- S8.3 Tessellations
- S8.4 3-D Shapes and isometric paper
- S8.5 Cubes and cuboids