

Week 1

Standard Form & Calculations/Calculator Skills

- Writing normal numbers in Standard Index Form
- Writing numbers from Standard Index Form to normal numbers
- Solving calculations in Standard Index Form using a scientific calculator and the relative function
- Solving calculations written as normal numbers using a scientific calculator
- Evaluating powers, roots and exponential functions using a scientific calculator
- Long multiplication
- Estimation
- Multiplying by powers of 10
- Prime Factors, Highest Common Factor and Lowest Common Multiple

Week 2

Further Calculations/Non-Calculator Skills

- Conversion of one currency to another
- Converting Imperial to Metric units and Metric units to Imperial
- Fractions and Decimals
- Solve percentage problems Including Compound and Simple Interest
- Percentage Increase and Decrease including Profit and Loss

Week 3

Angles

- Identifying and calculating angles from the following:
- Angles in a Triangle
- Angles on a Straight Line
- Angles where Parallel Lines are involved in the diagram
- Interior and Exterior angles in Regular Shapes

Week 4

Areas and Volumes

- Areas of regular shapes including:
- Triangles & Rectangles
- Trapeziums & Circles
- Volumes of Cuboids
- Cylinders & Prisms
- All formula for Areas and Volumes must be learnt as not information sheets are given in the examination.

Week 5

Ratios

- Ratios in the form of 3:7
- Ratios of similar shapes
- Ratios of ingredients when cooking

Week 6

Pythagoras and Trigonometry

- Calculate the length of a side of a right angled triangle using Pythagoras Theorem.
- Calculate the length of a side of a right angled triangle or an unknown angle using one of the three Trigonometry ratios. Sine, Cosine or Tangent.
- Understand and use a scientific calculator for both of these topics.

Week 7

Algebra

- Factorising equations.
- Expanding and simplifying equations.
- Solving equations.
- Writing algebraic expressions.
- Solving Simultaneous Equations by the elimination method.
- Find solutions to quadratic equations by factors.

Week 8

Number Sequences or Number Patterns

- Complete a number pattern.
- Explain in words how to complete the pattern.
- Write the expression for the “nth” term for a given pattern.

Week 9

Graphs

- Complete Scatter Graphs and draw a line of best fit.
- Take data from Scatter Graphs, including the Correlation.
- Complete the table of results for Straight Line Graphs.
- Draw Straight Line Graphs and use the graph to give values of X and Y.
- Complete the table of results for Quadratic Graphs.
- Draw Quadratic Graphs and find the solutions from the graph.

Week 10

Statistics

- Calculate the Mean, Mode and Median.
- Complete Frequency and Cumulative Frequency tables.
- Draw Cumulative Frequency Graphs.
- From the graphs clearly identify the Median, Upper, Lower and Inter Quartile values.

Week 11

Probability

- Writing probabilities from given information.
- This will be either as a fraction or decimal.
- Writing down all possible outcomes of events.
- Work out the probability of an event happening.
- Work out the probability of combined events.
- Complete Tree Diagrams.

Week 12

Miscellaneous

- Draw Stem and Leaf Diagrams, including a Key
- Calculate Moving Averages
- Inequalities
- Identify Lines, Areas and Volumes from given formula