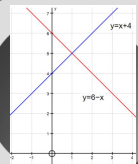




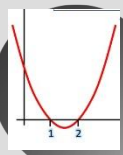
Linear Simultaneous Equations

- Setting up simultaneous equations
- Finding solutions to simultaneous equations graphically
- Finding solutions to simultaneous equations algebraically



Quadratics

- Creating quadratic expressions
- Plotting quadratic graphs
- Solving quadratic equations



$$2\sqrt{2}$$

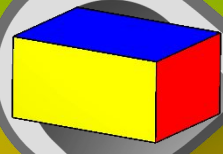
Y9

Ratio and Proportion in Geometry

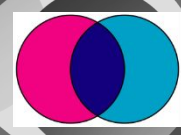
- Similar Shapes
- Area and volume of similar shapes
- Surds
- Using trigonometric ratios to find missing sides and angles

Calculating with shapes

- Volume of Prisms
- Surface area of Prisms
- Circles and composite shapes



Y8



Probability

- Single event probability
- Venn Diagrams
- Sets

Algebra

- Equations and Inequalities
- Forming and solving equations
- Linear Graphs
- Accuracy and Estimation



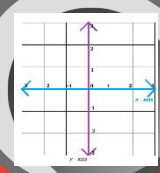
Data Handling

- Representations with data
- Univariate data
- Bivariate data



Geometry

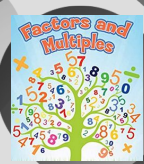
- The Cartesian Plane Co-ordinates
- Properties of Triangles Constructing triangles
- Properties of Quadrilaterals Constructing Quadrilaterals



Ratio and Proportion

- Defining fractions
- Operating with fractions
- Defining percentages
- Converting between FDP
- Ratio

Y7



- Factors and Multiples
- Order of Operations
- Negative Numbers
- Expressions
- Equations
- Inequalities

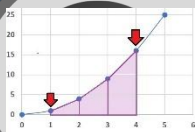
The number system



Y11

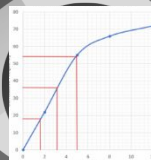
Algebraic methods

- Graph transformation
- Using the iterative method
- Area under a curve
- Using the tangent



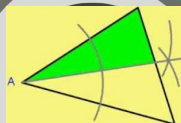
Statistics

- Box plots
- Cumulative frequency graphs
- Histograms



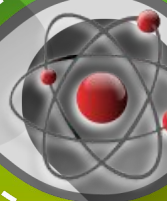
Geometric Reasoning

- Constructions and loci
- Algebraic proof
- Geometric proof



Working with number

- Index laws
- Surds
- Using and calculating in standard form



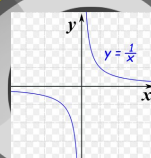
3D Geometry

- Nets of 3D shapes
- Surface area
- Volume of prism
- Volume of pyramids, cones and spheres



Algebraic Functions

- Function notation
- Inverse and composite functions
- Cubic and reciprocal graphs
- Equation of a circle



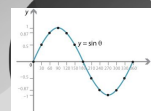
Vectors

- Column vector notation
- Vector notation
- Resultant vectors
- Parallel and co-linear vectors

$$\begin{pmatrix} 1 \\ 2 \end{pmatrix}$$

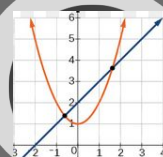
Proportional Reasoning

- Direct and Inverse Proportion
- Pythagoras Theorem on 3D objects
- Trigonometric Graphs



Developing algebra

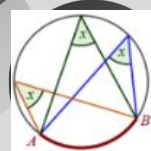
- Manipulating expressions
- Linear and non-linear inequalities
- Solutions to non-linear simultaneous equations



- Circle Theorems
- Deriving Circle Theorems

Angle Reasoning

Using circle theorems to find missing angles



Probability review

Y10

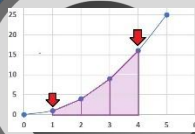


Y11

Y10

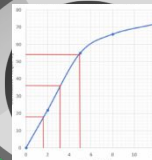
Language and communication

- Describing transformations
- Systematic listing
- Comparing data sets
- Mathematical proof



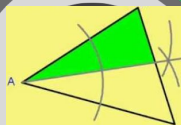
Reasoning

- Proportional reasoning
- Geometric reasoning
- Algebraic reasoning and proof



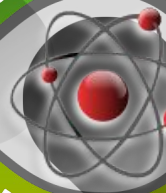
Algebra

- Quadratic expressions
- Solving quadratics
- Change the subject
- Functions



Graphs

- Linear graphs
- Quadratic graphs
- Non-linear graphs
- Kinematics graphs



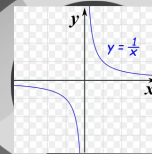
Using number

- Exact answers
- Rational and irrational numbers
- Surds
- Sequences
- Powers and roots



Statistics

- Sampling
- Types of data
- Representing data
- Cumulative frequency
- Comparing distributions



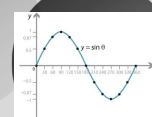
Proportional change

- Ratio problems
- Ratios, graphs and algebra
- Percentage change
- Iteration



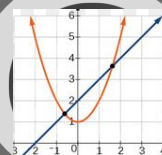
Geometry

- Scale diagrams
- Bearings
- Arcs and sectors
- Circle theorems
- Vectors



Developing algebra

- Linear equations
- Graphical solutions
- Quadratic equations
- Inequalities
- Regions
- Simultaneous equations



Similarity

- Enlargement
- Similarity and congruence
- Geometric proof
- Pythagoras
- Trigonometry

