

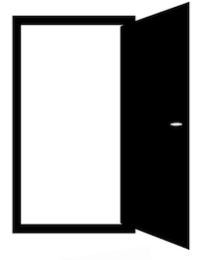
# Biddenham International School: Maths Curriculum



**Sequences:**  
Students learn how to find the rule for linear and quadratic sequences and use this within problem solving questions.



**Revision**  
A full recap of all chapters studied within the GCSE course with additional revision sessions for those that need them.



**Year 11**

**Units and proportionality:**  
Students study rates of change, growth and decay, and direct and inverse proportion in their last GCSE chapter of study.

**GCSE Examination season:**  
Mathematics  
**AQA**

**Graphs 2:**  
This chapter expands upon Graphs 1 by introducing cubic, reciprocal, trigonometric and exponential graphs.

**Handling data 2:**  
Measure of spread are covered again here before students learn how to represent the spread and correlation of data sets visually.

**Graphs 1:**  
Graphs are studied looking at the properties and representations of linear, quadratic and kinematic functions.

**The probability of combined events**  
This chapter introduces combined event probability using sets, possibility spaces and tree diagram to aid understanding.

**Pythagoras, trigonometry and vectors**  
This chapter predominantly focuses on pythagoras and trigonometry before introducing vectors.

**Calculations 2:**  
This chapter introduces roots, indices and standard form into previous learn methods with addition, subtraction, multiplication and division.

**Working in 3D:**  
Students learn to find the volume and surface of a range of 3D shapes.

**Year 10**

**Working in 2D:**  
Students now focus on finding the area and perimeter of common 2D shapes. They also study a range of transformations.

**Measures and accuracy:**  
Students practice converting between both metric and imperial units before looking at estimation.

**Circles and constructions:**  
Students recap their knowledge of key circle concepts and constructions before learning circle theorems for the first time.

**Fractions, decimals and percentages:**  
Students use fractions in all four operations, convert between fractions, percentages and decimals and use fractions and percentages in real life examples.

**Probability:**  
Students learn how to find the probability in theory and in experiments. The idea of mutually exclusive events is also covered here.

**Equations and inequalities:**  
Students learn how to solve a variety of equations in different forms.

**Factors, powers and roots:**  
Students reviewed what they learnt about factors, powers and roots in year 7 and 8 before studying surds.

**Handling Data 1:**  
Students learn how to represent data, use frequency diagrams and study the basic measures of spread.

**Calculations 1:**  
Students practice rounding, place value and the four operations.

**Formulae and functions:**  
Students expand on what they learnt in the expressions chapter to include more complex algebraic terms and expanding and factorising double brackets..

**Angles and Polygons:**  
Students study angles in circles, polygons and lines. They are also introduced to congruence and similarity at GCSE level.

**Expressions:**  
Students learn to manipulate algebra include those with indices and are introduced to factorising and expanding single brackets.

**Year 9**

**Geometry:**  
Constructions and Pythagoras

**Geometry:**  
3D shapes and trigonometry

**Ratio and proportion**

**Number:**  
Powers and roots

**Probability**

**Algebra:**  
Sequences

**Geometry:**  
Transformations and scale

**Number:**  
Decimal calculations

**Geometry:**  
Angles and 2D shapes

**Algebra**  
Expressions and formulae

**Number:**  
Whole numbers and decimals

**Algebra:**  
Equations

**Statistics**

**Algebra:**  
Graphs

**Number:**  
Fractions decimals and percentages

**Geometry:**  
Measures, perimeter and area

**Year 8**

**Algebra:**  
Equations

**Geometry:**  
Constructions and 3D shapes

**Number:**  
Decimal calculations

**Probability**

**Number:**  
Factors and multiples

**Algebra:**  
Sequences

**Ratio and proportion**

**Welcome to Maths at Biddenham – the adventure starts here!**

**Statistics**

**Number:**  
Fractions decimals and percentages

**Geometry:**  
Measures, perimeter and area

**Year 7**

**Geometry:**  
Transformations and symmetry

**Number:**  
Whole number calculations

**Geometry:**  
Angles and 2D shapes

**Algebra:**  
Measures and formulae

**Number:**  
Whole numbers and decimals

