

# Year 11 Maths



What have students at St. Crispin's been taught to understand and be able to do?

#### Core Knowledge

Students are taught using the Oxford University Press AQA GCSE Maths Foundation or Higher tier textbooks

Sequencing of learning is loosely based upon the chapters in the book. The exact order of the work is detailed in the scheme of work diagram at the bottom of this document.

Foundation: Revision of Year 10 content and:

Number – calculations with roots and indices, surds, standard form

Ratio and proportion – compound units, direct and inverse proportion, growth and decay

Data handling – averages from frequency tables, scatter and time series graphs

Probability – set notation, venn diagrams, sample space diagrams, tree diagrams

Geometry - Pythagoras, trigonometry, vectors

Algebra- quadratic graphs, sketching functions, real life graphs, sequences.

Higher: Revision of Year 10 content and:

Number - Calculations with roots and indices, surds and standard form

Ratio and proportion – compound units, direct and inverse proportion, growth and decay

Data handling – Averages from frequency tables, scatter, time series, box plots, cumulative frequency graphs

Probability – set notation, venn diagrams, sample space diagrams, tree diagrams

Geometry – 3D shapes, volume, surface area, Pythagoras, trigonometry, vectors

Algebra- cubic, reciprocal, exponential and trigonometric graphs, real life graphs, equation of circle, gradient and area under graphs, sequences.

#### Core Skills

Students in Year 11 follow the second year of a two year GCSE scheme of work. In Year 11 students cover approximately one third of the content from the content areas; number, ratio and proportion, data handling, probability, geometry and algebra. Core skills students will develop are to:

- Be able to reason mathematically
- To be able to follow mathematical processes but also apply knowledge from across the curriculum and make connections between their learning.
- To apply taught skills to solve functional real world mathematical problems
- To develop revision and exam techniques to prepare them for the formal GCSE assessments.

Students are pushed to develop their fluency in mathematics by having a large focus of every lesson on developing student's numeracy skills in every unit of work.

Students are also given regular feedback and teacher modelling to encourage students to be able to write meticulous, detailed, and mathematically correct solutions so that students are able to communicate mathematicallu.



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Students take end of chapter tests throughout the year where areas of weakness are identified and intervention with specialist intervention teachers organised.

Students also sit two full sets of papers as mock exams in the run up to their formal exams in the summer. One during the mock exam period for all subjects in December and in class in March.

Summer exams - Paper 1, 1hr30, non-calculator. Paper 2, 1hr30, calculator. Paper 3, 1hr30, calculator. There is no set content per paper. All content is covered across the 3 papers.

### Foundation Scheme of Work

Please click the link below for the Foundation Scheme of work

Foundation Scheme of work

## Higher Scheme of Work

Please click the link below for the Higher Scheme of work

Higher Scheme of Work

#### What is coming up in the following year?

In Year 11 students finish receiving quality first teaching of the final third of content and then start a series of revision of key material from Year 10.



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