



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 mathematically.



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How has learning been assessed?

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.

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.

Foundation Scheme of Work

- Year 11, 2016 - St Crispins Foundation 2 Year

September				October				November			
Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	
Averages and spread	Scatter graphs, time series and freq polygons	Standard form and exact calculations	Quadratic graphs	Sketching graphs	Real life graphs	Holiday	Pythagoras' theorem	Trigonometry			
November		December				January				February	
Wk 12	Wk 13	Wk 14	Wk 15	Wk 16	Wk 17	Wk 18	Wk 19	Wk 20	Wk 21	Wk 22	
Trigonometry	Vectors	Mock Examinations and Revision		Holiday		Probability	Set theory and tree diagrams	Sequences	Direct and inverse proportion		
February			March					April			
Wk 23	Wk 24	Wk 25	Wk 26	Wk 27	Wk 28	Wk 29	Wk 30	Wk 31	Wk 32	Wk 33	
Holiday	Growth and decay	Revision					Holiday		Revision and June Examinations		
April	May				June				July		
Wk 34	Wk 35	Wk 36	Wk 37	Wk 38	Wk 39	Wk 40	Wk 41	Wk 42	Wk 43	Wk 44	
Revision and June Examinations				Holiday		Revision and June Examinations		w/b 19/6 w/e 25/6	w/b 26/6 w/e 2/7	w/b 3/7 w/e 9/7	



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Higher Scheme of Work

Year 11, 2016 - St Crispins Higher 2 Year

September			October					November			
Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	
2D representations of 3D shapes	Volume		Statistical measures	Scatter graphs	Roots and indices	Holiday	Standard form	Transforming functions	Further equations and graphs		
November		December				January			February		
Wk 12	Wk 13	Wk 14	Wk 15	Wk 16	Wk 17	Wk 18	Wk 19	Wk 20	Wk 21	Wk 22	
Sketching graphs	Equation of a circle	Mock examination and revision	Holiday			Pre-calculus and area under a curve	Pythagoras theorem and basic trigonometry	Sine and cosine rules	Vectors		
February			March				April				
Wk 23	Wk 24	Wk 25	Wk 26	Wk 27	Wk 28	Wk 29	Wk 30	Wk 31	Wk 32	Wk 33	
Holiday	Probability	Sequences	Growth and decay	Direct and inverse proportion	Gradients and rate of change	Holiday			Revision and June Examinations		
April	May			June				July			
Wk 34	Wk 35	Wk 36	Wk 37	Wk 38	Wk 39	Wk 40	Wk 41	Wk 42	Wk 43	Wk 44	
Revision and June Examinations				Holiday	Revision and June Examinations					w/b 3/7 w/e 9/7	