



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

Core Knowledge

Unit 1 - Algebraic expressions

Students will begin manipulation and simplifying of algebraic expressions. Students will be collecting like terms, simplifying indices and expanding and factorising brackets.

Unit 2 - Angles

Students will learn about angle notation, angles in parallel lines, angles in triangles and quadrilaterals and angle reasoning and proofs.

Unit 3 - Formulae

Students will write and use formulae and then begin to rearrange simple formulae.

Unit 4 - Area and Volume

Students will recap areas of simple shapes as seen in unit 8 from year 7. Once this has been complete students will discover areas of circles and volumes of prisms and cylinders.

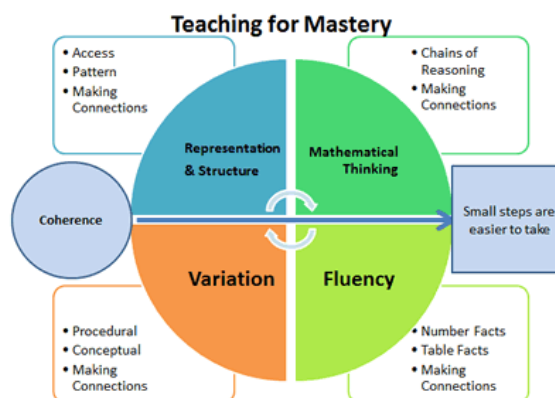
Unit 5 - Forming and Solving equations

Students will start by completing one step equations before moving onto multi-step equations. Once this is secure knowledge students will form and solve multi-step equations and double-sided equations.

Unit 6 - Number theory and sequences

Students will learn how to find the highest common factor and lowest common multiples of numbers and will begin to look at algebraic proofs. The second half of this topic, students will learn about term-to-term rules, Fibonacci sequences and how to find the Nth term of a sequence.

Core Skills



Students in year 8 are following our new mastery scheme of work developed alongside the NCETM and Maths Hub to ensure latest educational research is leading our pedagogical approach to teaching mathematics. Lessons are broken down into small connected steps that gradually unfold the concept, providing access for all children and leading to a generalisation of the concept and the ability to apply the concept to a range of contexts.

Core skills students will develop are to:

- Use manipulatives and pictorial representations to model mathematical problems
- 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.

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.



Unit 7 - Functions, co-ordinates and Graphs

Students will use their algebraic skills developed earlier in units 1 and 3 to plot linear and quadratic graphs.

Unit 8 - Introduction to stats

Students will cover data collection and analysis process.

Our schedule of work - detailing when each unit is taught in year 8 can be found [here](#)

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.

Resources

Our scheme of work in year 8 is based upon the MathsPad Core Curriculum book 2 and the MathsPad Support Curriculum book 2

Students use these books in lessons and have logins for the following websites to use at home:

1. <https://www.mathspad.co.uk/> - with lessons and activities linking to their textbooks. Students can be set homework on this website.

If parents wish to purchase a copy of the textbook to use at home they can be purchased at the following links:

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How has learning been assessed?



Students are assessed in two ways:

1. Informally using checkpoints, a teacher led lesson through an independent piece of work on all learning objectives in the most recent unit. Checkpoints occur throughout year 8 typically at the end of a unit of work.
2. Formal summative assessments occur 2 times a year

Assessment 3 – Tests all material from unit 1 in year 7 to the end of unit 3 in year 8.

Assessment 4 - Tests all material from unit 1 in year 7 to the end of unit 8 in year 8.

What is coming up in the following year?

Year 9 revisits and interleaves topics taught in years 7 and year 8, in greater depth and complexity and spend a large proportion of the year studying Geometry based topics. In year 9 students will also begin to study Ratio and Proportion, Pythagoras and Trigonometry, and Probability.



Year 8 Maths

