



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

Core Knowledge

Unit 1 – Place value and decimals

Students will cover all the basics of number – from reading and writing numbers, using inequality and arithmetic symbols correctly, using decimals and fractions to represent proportions and rounding.

Unit 2 – Calculations

Students will cover all written and mental methods for addition, subtraction, multiplication and division including decimal calculations.

Unit 3 – Negative numbers

Students will discover the rules of negative numbers and apply them to calculations work in unit 2.

Unit 4 – Fractions

Students will learn using fractions, finding fractions of amounts, equivalence in fractions, adding, subtracting, multiplying and dividing fractions, finding reciprocals and converting between fractions, decimals and percentages.

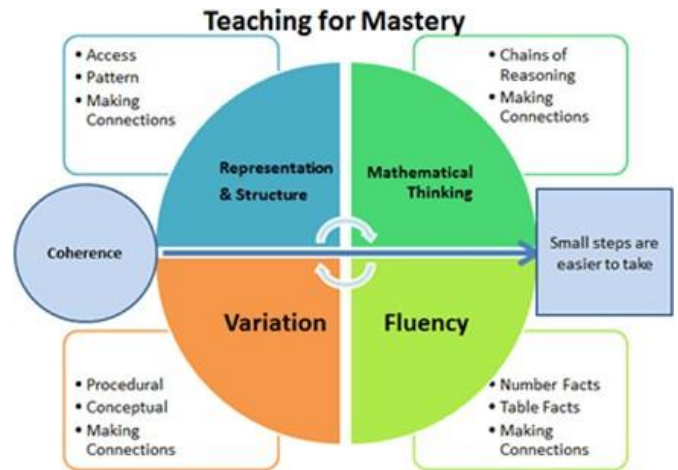
Unit 5 – Indices

Students will learn to write repeated multiplication using index notation and meet the laws of indices for multiplication, division, raising powers to powers, the effect of having something to the power of zero or a negative power. They will then move on to the world of roots, calculating and estimating roots and the laws of BIDMAS.

Unit 6 – Introduction to Algebra

Students will be introduced to the world of algebra for a lengthy unit of work. Reading and writing using algebra. Simplifying algebra by collecting like terms, multiplying and dividing with algebra, algebraic fractions and substituting into algebra.

Core Skills



Students in Year 7 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. 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.

Once students have mastered these they will go onto solving equations.

Unit 7 – Working with measures

In this shape and space unit we will work through the properties of all rectilinear and circular shapes. Then introduce students to time, speed and standard form.

Unit 8 – Shapes, area and Pythagoras

This unit covers metric units, area of all rectilinear and circular shapes, and then delves into the world of Ancient Greece and discovers Pythagoras' theorem for right angled triangles.

Unit 9 – Fractions, decimals and percentages

This unit builds upon units 1 to 4 going into more depth with the equivalences between fractions, decimals and percentages and looks in depth at percentages including its real-life applications to interest rates and other applications of percentage increases and decreases.

Our schedule of work – detailing when each unit is taught in year 7 can be found [here](#).

Resources

Our scheme of work in year 7 is based upon the MathsPad Core Curriculum book 1 and the MathsPad Support Curriculum book

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.
2. <https://www.mymaths.co.uk/>– with revision lessons and teacher videos on every topic. 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:

[Core curriculum book 1](#) and
[Support curriculum book 1](#)



Year 7 Maths continued



How has learning been assessed?

Students are assessed in two ways:

1. Informally using checkpoint activities, which are a teacher led lesson through an independent piece of work on all learning objectives in most recent unit. Checkpoints will occur through year 7, typically 2 checkpoints per unit.
2. Formal summative assessments occur 2 times a year.

Assessment 1 – Tests units 1-5.
Assessment 2 – Tests units 1-8.

What is coming up in the following year?

Year 8 revisit the topics taught in year 7, in greater depth and complexity and spend the larger proportion of the year focusing on algebra. In year 8 they also meet new topics; graphs, sequences and statistics for the first time.