



Year 8 Maths



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

Core Knowledge	Core Skills
<ol style="list-style-type: none">1. Number – whole number and decimal calculations2. Geometry – measures, perimeter and area3. Algebra – expressions and formulae4. Number – fractions, decimals and percentages5. Geometry – angles and shapes6. Algebra – graphs7. Number – mental calculations8. Data handling – statistical representations9. Geometry – transformations and symmetry10. Algebra – equations11. Number – written calculations and calculator use12. Geometry – constructions13. Algebra – sequences14. Geometry – 3D shapes15. Number – ratio and proportion16. Data handling – probability17. Functional maths.	<p>Students in Year 8 are the final year group following our historic Key Stage 3 curriculum. It is a spiral design curriculum where we repeat each topic at the same time each year, recapping previous learning and going deeper into the topic. By revisiting the key skills of number, algebra, geometry and data we ensure deep understanding and the ability to make links to skills across the curriculum. Core skills students will develop are to:</p> <ul style="list-style-type: none">• 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. <p>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.</p> <p>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.</p>

How has learning been assessed?

Students take summative assessments at the end of every half term.

What is coming up in the following year?

The same units of work are revisited but going into greater depth and complexity of mathematics within them.



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

Core Knowledge

Unit 1 - Computer systems

In this unit students will learn about the fundamentals of how a computer system operates. Students will learn about the hardware, software and memory of a computer system. They will also learn about the history of Alan Turing.

Unit 2 - Networks

Students will learn about networks and how computers are connected.

Unit 3 - Python

This unit introduces students to the basics of programming using the Python programming language. Students will learn about the following:

- Print
- Loops
- Variables
- If Statements
- Else Statements
- Importing data

Unit 4 - Microbit python editor

This unit applies and enhances the learners' programming skills in a new engaging context: physical computing, using the BBC micro:bit. In the first half of the unit, learners will get acquainted with the host of components built into the micro:bit, and write simple programs that use these components to interact with the physical world.

Unit 5 - Data representation

- The Binary Number System
- Binary - Denary Conversions
- Binary Addition

Core Skills

- Develop computational thinking
- Evaluate and apply ICT to solve problems
- Gain practical experience of writing computer programs
- Use a variety of programming languages.



Year 8 Computing



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

Core Knowledge

- Binary Representation of Text
- Binary Representation of Images
- Binary Representation of Sound

Unit 6 - HTML and CSS

- HTML Basics
- CSS
- Text
- Images
- Divisions
- Layout

Core Skills

How has learning been assessed?

Students complete project based tasks within lessons that are submitted for assessment.