

We want to ensure that all students understand the key concepts of computer science, and can implement them across a range of programming areas to solve problems.

	Knowledge	Skills
<a href="#">Year 7</a>	<p>To be able to use key parts of school software and services.</p> <p>To identify and understand the purposes of key office software.</p> <p>Understand the difference between hardware and software.</p> <p>Know what an algorithm is, and the different flowchart symbols use to create them.</p> <p>Know how to run code in EduBlocks. Recognise the inputs in a piece of EduBlocks.</p>	<p>Login to RMuify, send emails and save files in folders.</p> <p>Format text and data in documents, presentations, and spreadsheets.</p> <p>Identify input and output devices, and different memory types.</p> <p>Be able to read a flowchart algorithm.</p> <p>Edit code in EduBlocks to better understand code. Combine blocks on EduBlocks to create simple working code.</p>
<a href="#">Year 8</a>	<p>To understand the applications and legal implications of photo editing.</p> <p>Understand the purpose of computational thinking and be aware of a range of searching algorithms.</p> <p>Understand the purpose of the Turtle module in Python and recall names and purpose of some functions and structures.</p> <p>Understand potential risks of being online and what tools exist to protect you (e.g. encryption).</p> <p>Know what a network is used for. Identify and understand key networking hardware.</p>	<p>Use image editing tools to combine and manipulate images to form a digital collage.</p> <p>Can apply multiple searching algorithms. Can describe the use cases of algorithms to solve problems.</p> <p>Apply computational thinking skills to write code in EduBlocks using Python and Turtle that solve drawing problems.</p> <p>Identify potential security risks. Be able to use encryption in some circumstances.</p> <p>Can compare different types of network/networking hardware/protocol and select the most suitable for different situations.</p>
<a href="#">Year 9</a>	<p>Understand that many operations are similar across office software</p> <p>Understand the value of using flowchart and pseudocode algorithms</p> <p>Be aware of a range of sorting algorithms Know that computers use binary numbers and logic gates for <b>all</b> underlying decisions and process</p> <p>Know that websites may contain malicious information</p>	<p>Use specific tools in word processors, spreadsheets, presentation software and publishing software.</p> <p>Convert simple algorithms in to working code</p> <p>Can describe sorting algorithms, and compare them using their positives and negatives</p> <p>Can convert between binary and denary numbers.</p> <p>Can complete truth tables for single logic gates Can evaluate the reliability of different websites</p>