

OVERVIEW	<p>In Year 11 start by learning how computers think using pseudocode and how to troubleshoot code manually. They also learn about the efficiency of a variety of searching and sorting algorithms, how to use Boolean algebra, truth tables and trace tables. Students then learn about the types of programming language before a dedicated block of time devoted to programming in Python.</p> <p>Our aim to ensure that students have the practical skills to solve problems using pseudocode and Python.</p>
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AUTUMN	<p>Unit 6: Algorithms</p> <ul style="list-style-type: none"> • Flowcharts • Pseudocode • Loops 	<p>Assessment</p> <p>Students will be assessed by written tests after each topic. Students will be tested on prior learning at their December and March mock exams.</p>	<p>Personal Development</p> <p>Students consider the effects of Artificial Intelligence; the implications of file sharing and downloading illegally and the penalties for engaging in this type of activity. Students also consider the moral aspects of developments in technology including the use of CCTV cameras, Speed Cameras and Loyalty Cards and the use of drones in warfare.</p>
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SPRING	<p>Unit 8: Logic and Languages</p> <ul style="list-style-type: none"> • Logic Diagrams • Truth Tables • Defensive Design • Errors and Testing • Translators and Facilities • IDEs <p>Unit 7: Programming Fundamentals</p> <ul style="list-style-type: none"> • Sequence and Selection • Iteration • Arrays • Procedures and Functions • Records and Files • SQL 	<p>Assessment</p> <p>Students will be assessed by written tests after each topic. Students will be tested on prior learning at their December and March mock exams.</p>	<p>Personal Development</p> <p>Computing helps students to explore aspects of real and imaginary situations and enables them to reflect on the possible consequences of different actions and situations. It can raise issues such as whether it is morally right to have computer games whose aim is killing and violence.</p>
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Useful links

<https://www.youtube.com/watch?v=oRkNaF0Qvnl>
<https://www.youtube.com/watch?v=6hfOvs8pY1k>
<https://www.youtube.com/watch?v=ZnBF2GeAKbo>
https://www.youtube.com/watch?v=H_aLU-NOdHM
<https://www.youtube.com/watch?v=C5AHas1mOA>
<https://www.python.org/>
<https://www.codecademy.com/catalog/language/python>
<https://www.youtube.com/watch?v=SDVyGPDYgDE&list=PLqXS1b2lRpYSx1sKdqFrF1pKRtMNnMQYn>
https://www.youtube.com/watch?v=bY6m6_IIN94&list=PLi01XoE8jYohWFPpC17Z-wWhPOSuh8Er-