

Computer Science

Computer science topics are subject to change due to the changing nature of the subject area. We endeavour to make sure students are always learning about core key concepts as well as new innovations due to how the subject area changes every year.

All materials made in lesson are suitable for revision purposes for the testing done in lesson. These can be emailed home or printed off in lesson with the teacher's permission.

YEAR 7						
HALF TERM	1	2	3	4	5	6
AREA OF STUDY	E-Safety: Students will look at various aspects of E-safety and being safe online and skills to support others.	Introduction to coding through Kodu: Students will begin creating worlds and developing their programming skills in this visual programming environment.	Spreadsheet Modelling: <ul style="list-style-type: none"> Students will practice various skills relating to spreadsheets developing sheets for a business prototype. 	Computer Crime and Cyber security: Students will identify key security concerns in the modern world and how they are caused and prevented.	First Steps in Small Basic: Students will begin to program in the language of small basic. This is a high level program language developed by Microsoft to introduce programming concepts to students.	
NATURE OF ASSESSMENT	Students will complete a short test covering subject matter taught.	Students will complete a game of their own design over a series of lessons based on criteria given.	Students will complete a mix of tests and practical work developing a working spreadsheet for a model business	Students will complete an exam to assess their learning.	Students will complete a mix of a test and a practical project creating a program to meet a specification	

YEAR 8						
HALF TERM	1	2	3	4	5	6
AREA OF STUDY	<p>Understanding computers: Students look at how the computers work and their internal components and their interaction.</p>	<p>Control systems with Flowol: Students will look at Pseudocode and Flowcharts and their practical application and uses.</p>	<p>Database development: Students will look at different aspects of databases and how to create and develop them</p>		<p>Modelling in Small Basic: Students will begin to program in the language of small basic. This is a high level program language developed by Microsoft to introduce programming concepts to students.</p>	
NATURE OF ASSESSMENT	<p>Students complete a short exam covering what they have learnt in lesson.</p>	<p>Students complete a short exam covering what they have learnt in lesson.</p>	<p>Students complete a short exam covering what they have learnt in lesson.</p>		<p>Students will complete a mix of a test and a practical project creating a program to meet a specification</p>	

YEAR 9						
HALF TERM	1	2	3	4	5	6
AREA OF STUDY	<p>Introduction to Python: Students begin to look at Python programming language and learn about different elements such as selection, iteration and the use of appropriate data types and casting. Toward the end we begin to look at arrays and reading and writing to external files.</p>		<p>Networks: Students will look at different network topologies and the benefits and restrictions or different types</p>		<p>Morals and Ethics: Students will look at different moral and ethical dilemmas and how technology can cause and solve different examples.</p>	<p>System software and security: Students will look at methods of hacking and the damage done by different types of malware and their prevention.</p>
NATURE OF ASSESSMENT	<p>Students complete a number of small tests and a large programming project meeting a set criterion.</p>		<p>Students complete a short exam covering what they have learnt in lesson.</p>		<p>Students complete a short exam covering what they have learnt in lesson.</p>	<p>Students complete a short exam covering what they have learnt in lesson.</p>