

Computing & IT - Year 9	
Autumn 1 (September-October)	<p>Topic: Hardware</p> <p>Why now? To consolidate a range of prior learning, and to engage and motivate students into the technical side of computing. It is also to enable informed choices to be made for option choices.</p> <ul style="list-style-type: none"> • Input, output and storage devices • Networks • Internal components • Storage technology • Binary
Autumn 2 (October-December)	<p>Topic: Digital graphics and audio</p> <p>A practical and creative unit of work, particularly for those who may not be looking to follow computing beyond year 9. It enables students to demonstrate skills that would be beneficial if they were to opt for our vocational course.</p> <ul style="list-style-type: none"> • Binary and images • Colour • Image editing skills • Binary and audio • Audio editing
Spring 1 (January-February)	<p>Topic: Cyber security</p> <p>Cyber Security is a vital part of our digital lives. Post-Christmas, when many students may have received new technology as gifts (pcs, laptops, phones, game consoles), now is a good time to revisit the topic, but with more of a focus on how technology can be exploited, and what can and is being done to defend us.</p> <ul style="list-style-type: none"> • SPAM emails • Cyber security and the world of hackers • Caesar ciphers • Frequency Analysis – code breaking • Cryptography and the web
Spring 2 (February-April)	<p>Topic: Coding and game design</p> <p>Building on prior coding experiences (mix of text based and graphical, like Scratch), we introduce the pupils to GDevelop – a bespoke game development engine. This provides excellent preparation for the Creative iMedia course at KS4.</p>
Summer 1 (April-May)	<p>Topic: AI</p> <p>Building on pupils' experiences of using computer systems, we take a look into how AI works, where AI exists in our lives and the impacts it can have.</p>