

### Curriculum Plans – Key Stage 3 Year 9 Computing

Please find below a detailed outline of the curriculum covered in Computing through Year 9 in Key Stage 3.

#### Year 9

	Term 1.1	Term 1.2	Term 2.1	Term 2.2	Term 3.1	Term 3.2
Topics	<p>Python Programming:</p> <p>How is data represented and processed in sequences such as lists and strings? Pupils will write programs that display messages, receive keyboard input, and use simple arithmetic expressions.</p>	<p>Media and Animations:</p> <p>How do professionals create 3D animations using industry software such as Blender? Learners will practice the basics of modeling, texturing, and animating their 3D designs.</p>	<p>Audiovisual Media:</p> <p>How can I store my digital media (such as images and sounds) and as binary code? Pupils will use design software to manipulate images and sounds.</p>	<p>Data Science:</p> <p>How am I empowered by using data to investigate problems and make changes to the world around me? Learners will use data to visual patterns and trends.</p>	<p>Cybersecurity:</p> <p>What methods do cybercriminals use to steal data, disrupt systems, and infiltrate networks? Students will look at methods to protect from these attacks.</p>	<p>Physical Computing:</p> <p>How can I more effectively write programs that use these physical computing components to interact with the physical world?</p>
Assessment	<p>Encrypt and decrypt a text message using one of the oldest known cryptographic methods.</p>	<p>Creating a 3D animation to reflect cross-curricular learning.</p>	<p>Creating a digital art piece from existing and new media chosen by students.</p>	<p>Pupils will collect and analyse data relating to bahrain (e.g ocean litter) and present on their findings.</p>	<p>Presentation to school staff members about the schools cybersecurity and possible future steps.</p>	<p>Design and program a digital artifact of their choice - demonstrate its use and functionality.</p>
Support Materials	<p><i>Teach Computing KS3 Curriculum</i></p>					

Extension  
(Stretch/Challenge)

Student led projects and presentations.



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