

## Year 9 Computing

<b>Curriculum intent</b>	<p>We believe that students deserve a Computing and ICT curriculum which prepares them for the digital and fast paced world they live in. Covering the three strands of the computing national curriculum, Computer Science, ICT and Digital Literacy, our aim is to give our students the skills and abilities to engage positively with the digital world and take advantage of all the opportunities that come their way both in the UK and in the wider world.</p> <p>Our computing key stage 3 curriculum enables students to use computational thinking and creativity to solve real world problems by developing a wide range of skills in both programming and ICT, using multiple packages selected to spark and foster interest and creativity. Students will learn resilience and that making mistakes is part of learning, giving them the confidence to tackle a variety of independent learning activities.</p> <p>Students will be taught to navigate this new digital world safely and be aware of the dangers that they now face.</p> <p>Students will also begin studying for their IDEA Programme Bronze badge which will help develop their digital, employability and entrepreneurial skills.</p>						
<b>Term</b>	<b>Autumn 1</b>	<b>Autumn 2</b>	<b>Spring 1</b>	<b>Spring 2</b>	<b>Summer 1</b>	<b>Summer 2</b>	
<b>Knowledge</b>	<p><b>E-Safety:</b> E-Safety: What are the real-life consequences for not behaving appropriately online. Who was Phoebe Prince? What's the difference between a troll and Freedom of speech?</p> <p><b>Advanced Python:</b> Recap of previous knowledge such as variables and selection. What are If and If Else statements and how can they be used in programming?</p> <p><b>Data Representation:</b> How can different file types (sound, image, and text) be represented?  What is a Vector</p> <p><b>Music Festival Project: Create a Flyer for your music festival</b>  How photoshop can be used to manipulate images to create a final piece of work.</p>		<p><b>Business Studies:</b> The dynamic nature of business.  Why new business ideas come about.  How new business ideas come about.  Risk and Reward.  App Development</p>		<p><b>Binary:</b> Recap: What is a binary and Hexadecimal number?  How to add Binary numbers.  What are truth tables?  What are circuits?</p>		<p><b>Animation:</b> Using Blender to create 2d and 3d animations</p>
<b>Skills</b>	Word Discuss key concepts		Define, State, Recall, Explain, Discuss		Converting binary and hexadecimal numbers		

	<p>Using various skills to solve real world problems such as:  Loops  Lists  If and If Else statements  Search and Sort Functions</p> <p>Converting Binary bits to create images, sound and Text</p> <p>Using photoshop to create the leaflet</p>		<p>Adding binary numbers  Completing truth tables  Completing Binary Circuits.</p>	<p>Using a variety of tools to create 2d and 3d animations</p>
<b>Assessments</b>	<p>Python Assessment  Final leaflet produced</p>	<p>Written Assessment using GCSE part papers</p>	<p>Binary Assessment</p>	<p>Professional animation completed</p>
<b>Curiosity</b>	<p><a href="https://www.youtube.com/watch?v=nFn2frlTves">https://www.youtube.com/watch?v=nFn2frlTves</a> – Advanced Python Tutorial</p> <p><a href="https://www.youtube.com/watch?v=Yrtm7d3TJbs">https://www.youtube.com/watch?v=Yrtm7d3TJbs</a> – Advanced Python Tutorials</p>	<p><a href="https://www.youtube.com/watch?v=k4aTPgZY37I">https://www.youtube.com/watch?v=k4aTPgZY37I</a> - the journey of 6 real life entrepreneurs</p>	<p><a href="https://www.youtube.com/watch?v=YgVNJ2v9IPA">https://www.youtube.com/watch?v=YgVNJ2v9IPA</a> – Binary use in real life</p>	<p><a href="https://www.forbes.com/sites/heathermorgan/2020/11/24/how-to-become-a-successful-youtuber-in-2021/?sh=57d411765c0f">https://www.forbes.com/sites/heathermorgan/2020/11/24/how-to-become-a-successful-youtuber-in-2021/?sh=57d411765c0f</a> - How to become a successful youtuber</p>

**Extra Curricular:**

- Cyber Explorer
- Coding Club
- Bebras Challenge
- Internet Safety Day Logo competition
- E-Safety Video editing competition

