



## Year 9 - IT & Computing - Curriculum – 2024-2025

	Autumn Term		Spring Term		Summer Term	
	1	2	1	2	1	2
<b>Key Concepts</b>	Digital Animation & Digital Safety	Systems, Networks & Data Representation	Graphics and Binary	Sound and Binary	Creative Computing Project	Spreadsheets
<b>Knowledge &amp; Understanding (National Curriculum)</b> <i>Skills are across the whole year.</i>	<p>In Year 9 students will begin to further develop and enhance their skills and knowledge in 3 main areas: Digital Literacy, IT and Computer Science. Students get to further experiment with different skills so they begin to further develop their knowledge and understanding in all the key areas. Students create interactive products using animation, graphics and sound. In year 9 students get a chance to carry out project work which reflects a working environment with pre-production, production and post production stages. Students further develop their knowledge and understanding of computer systems, networks and data representation. Binary use of graphics and sounds is further explored. Computing theory skills are further developed with previous learned reviews and explored to a higher level with computing components and their role within a computer system investigated. Students develop an understanding and knowledge of how spreadsheet skills apply to almost every career. Spreadsheets and programming skills are explored to develop complex systems. Students skills and knowledge in year 9 is developed with different digital systems, computation and programming. Students further look at analysing problems in computational terms, and have practical programming to solve problems. Students will become digitally literate and have key computing knowledge. Students will further develop their problem solving skills, programming skills, collaboration and creative skills. All units of work are taught in a sequential manner to support independence in assessments. Students are reminded of careers that each unit of learning links to which keeps them engaged and thinking about future career prospects. Students during year 7 - 9 get to experiment with different skills and computing experiences so they begin to get a better understanding of what digital path they might prefer. Students develop a good understanding of the workings of computing and digital systems.</p>					



<b>Skills</b>	<b>R</b> Develop <b>RESILIENCE</b>	★ <i>Students need to tackle sensitive real world topics such as staying safe online and cyberbullying. Irrespective of how sensitive and tough the students are learning, students will learn from these experiences.</i>
	<b>A</b> Possess <b>AMBITION</b>	★ <i>Students should show a desire to always improve based on constructive feedback and look to participate in group discussions and problem solving computational thinking activities. Students should show a desire to always improve their creative digital skills.</i>
	<b>I</b> Demonstrate <b>INTEGRITY</b>	★ <i>Demonstrating and upholding strong moral and ethical values when learning specific topics throughout the year.</i>
	<b>S</b> Embed <b>Self-Discovery</b>	★ <i>Students have to reflect on topical issues such as digital threats and issues. Students should be open to developing personal opinions and feelings, being mature enough to discuss in a group environment.</i>
	<b>E</b> Display <b>EMPATHY</b>	★ <i>Students need to listen to other people's views, experiences and opinions and be prepared to listen and understand differing viewpoints in order to develop their own personal opinion.</i>
<b>Curriculum Links</b>	<ul style="list-style-type: none"> <li>Digital safety builds on cyber security, e-safety knowledge and understanding from the year 7 / 8 units of work. Digital safety skills developments links in with PSHE helping students to stay safe. Programming skills are further built on from text / visual based programming skills developed in year 7 / 8. Computing systems and representation knowledge and understanding is further enhanced and developed from skills learnt in yr 7 / 8 to create a sound overall understanding of how systems work</li> </ul>	



	<p>together. Networks in computing are further explored and binary use in computing is reviewed and further explored in sound and graphics. Students build on digital IT skills learned in year 7 / 8 such as web development to help them further develop their knowledge and skills in areas such as animation and sound production. Digital IT skills are linked to project work which helps reflect a working environment with pre-production, production and post production stages. Students' digital skills and computing knowledge from each unit of learning interlinks digital strands and helps students to begin to think about their future digital career prospects. Students during year 7 - 9 get to experiment with different skills and computing experiences so they begin to get a better understanding of what digital path they might prefer (KS4 Digital Paths - Digital IT / Computer Science).</p>
<p><b>Assessment</b></p>	<ul style="list-style-type: none"> <li>● Practical Assessment - Unit 1 final checkpoint <ul style="list-style-type: none"> <li>○ Unit checkpoint - Key Frame animation</li> </ul> </li> <li>● Written Test Assessment - Unit 2 final checkpoint <ul style="list-style-type: none"> <li>○ Unit checkpoint - Storage</li> </ul> </li> <li>● Practical Assessment - Unit 3 final checkpoint <ul style="list-style-type: none"> <li>○ Unit checkpoint - Effects / Gradients</li> </ul> </li> <li>● Practical Assessment - Unit 4 final checkpoint <ul style="list-style-type: none"> <li>○ Unit checkpoint - Audio/Binary</li> </ul> </li> <li>● Practical Assessment - Unit 5 final checkpoint <ul style="list-style-type: none"> <li>○ Unit checkpoint - Design</li> </ul> </li> <li>● Test Assessment - Unit 6 final checkpoint <ul style="list-style-type: none"> <li>○ Unit checkpoint - Data Validation</li> </ul> </li> </ul>
<p><b>Aspirations &amp; Careers</b></p>	<ul style="list-style-type: none"> <li>● Students recognise that the digital sector is a major source of employment in the UK where digital skills span across multiple industries, where almost all jobs in the UK require good levels of digital literacy. Students can pursue a career in computing, the digital sector, university, sixth form or apprenticeship with good digital skills.</li> </ul>