

## Year 9 Computing Sequence

Year	Content Taught	National Curriculum Reference	Essential Knowledge	Assessment	Rationale
<b>Year 9</b>					
<b>YEAR 9</b>  <b>HT1</b>	In this half term students will study a topic focused on:  <b>VFestival - Graphics</b>	Create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability	Skills learned include:  <ul style="list-style-type: none"> <li>• Formatting, Lasso Tool, Fill, Filters</li> </ul> Draws on essential knowledge learned in Year 8	<b>Formative</b> Students will complete retrieval exercises each lesson to review and recall knowledge from previous lessons and apply this knowledge to alternate scenarios to deepen understanding.  <b>Summative</b> Students will complete a Teams based KO Test to summarise content.  Within this half term students will develop essential knowledge in lessons and 'bring it all together', by implementing it into a challenging and motivational ICT based "design and create" task using the software that students have been developing skills in using.	In Year 9 the rationale behind the curriculum is to introduce project-based work. This is designed to build on and deliver Computer Science and ICT multimedia essential knowledge learned over the previous 2 years and applying them to create a whole project based on a specific scenario. Students will be taught how to be more analytical to identify and understand what a client's requirements are.  This Essential Knowledge also builds on knowledge gained in KS2, learning how to select, use and combine a variety of software (including internet services)

<p><b>HT2</b></p>	<p>In this half term students will study a topic focused on:</p> <p><b>VFestival - Dreamweaver</b></p> <p><b>VFestival - PowerPoint</b></p>	<p>Create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability</p>	<p>Skills learned include:</p> <ul style="list-style-type: none"> <li>• Navigation, hyperlinks, interaction, content relevance, ease of use.</li> </ul>	<p><b>Formative</b></p> <p>Students will complete retrieval exercises each lesson to review and recall knowledge from previous lessons and apply this knowledge to alternate scenarios to deepen understanding.</p> <p><b>Summative</b></p> <p>Students will complete a Teams based KO Test to summarise content.</p> <p>Within this half term students will develop essential knowledge in lessons and ‘bring it all together’, by implementing it into a challenging and motivational Dreamweaver based “design and create” task.</p>	<p>on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p> <p>Students will then need to give reasons and explanations as to why they have fulfilled the specified criteria. The work completed in KS3 and specifically Year 9 will allow the students to transition seamlessly into the subject options chosen in KS4 – Computer Science and Digital Information Technology. This builds on the Project work including User Interfaces and spreadsheets to allow seamless access to the topics covered in ICT. Programming and algorithms build into KS4 Computer Science.</p> <p><b>Sequence and Progression:</b></p>
<p><b>HT3</b></p>	<p>In this half term students will study a topic focused on:</p> <p><b>VFestival - Spreadsheets</b></p>	<p>Design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems</p>	<p>Formulas and Functions include:</p> <ul style="list-style-type: none"> <li>• Formatting, sum, formulas, spinners, Conditional formatting, VLOOKUP, list box, if</li> </ul>	<p><b>Formative</b></p> <p>Students will complete retrieval exercises each lesson to review and recall knowledge from previous lessons and apply this knowledge to alternate scenarios to deepen understanding.</p> <p><b>Summative</b></p>	<p><b>Sequence and Progression:</b></p>

			<p>statements, Macros</p> <p>Draws on essential knowledge learned in KS2</p>	<p>Students will complete a Teams based KO Test to summarise content.</p> <p>Within this half term students will develop essential knowledge in lessons and ‘bring it all together’, by implementing it into a challenging and motivational Excel based “design and create” task.</p>	<p><b>V-Festival Graphics and User interface</b> in HT1 linked in KS4 to Component 1 User Interfaces in Yr10.</p> <p><b>Databases</b> in HT4 is linked to Component 2 – Data Dashboard in KS4 in Yr10 and 11. It is also linked in KS4 to Data Representation and Databases in Computer Science in Yr10.</p>
<b>HT4</b>	<p>In this half term students will study a topic focused on:</p> <p><b>Netflix Database – Tables, Data types and Forms</b></p>	<p>Design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems</p>	<p>Skills learned include:</p> <ul style="list-style-type: none"> <li>• Validation, Tables, Queries, Reports, Forms, Input Masks etc</li> </ul>	<p><b>Formative</b></p> <p>Students will complete retrieval exercises each lesson to review and recall knowledge from previous lessons and apply this knowledge to alternate scenarios to deepen understanding.</p> <p><b>Summative</b></p> <p>Students will complete a Teams based KO Test to summarise content.</p> <p>Within this half term students will develop essential knowledge in lessons and ‘bring it all together’, by implementing it into a challenging and motivational Access based “design and create” task.</p>	<p><b>V-Festival Booking System</b> in HT3 is linked in KS4 to Component 2 Data Dashboard in KS4.</p>

<p><b>HT5 &amp; HT6</b></p>	<p>In this half term students will study a topic focused on:</p> <p><b>Python programming</b></p>	<p>Understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem</p>	<p>Instructions include:</p> <p>Computational thinking, python, print, variables, data types, input, if and for loops, angles of shapes, iteration and procedures.</p> <p>Draws on essential knowledge learned in Year 7 Python programming Turtle</p>	<p><b>Formative</b> Students will complete retrieval exercises each lesson to review and recall knowledge from previous lessons and apply this knowledge to alternate scenarios to deepen understanding.</p> <p><b>Summative</b> Students will complete a Teams based KO Test to summarise content.</p> <p>Within this half term students will develop essential knowledge in lessons and 'bring it all together', by implementing it into a challenging Python programming creation task. Students will apply algorithmic thinking to create a Python based solution to the task set.</p>	
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