



## CHS Curriculum Intent

**SUCCESSFUL:** Learners who gain deep and powerful knowledge in preparation for life; combining academic rigour, curiosity and creative flair.

**CREATIVE:** Learners who are imaginative, optimistic and inventive; finding their voice to become effective communicators prepared for lifelong adaptability

**HAPPY:** Learners who are confident, resilient, well-rounded citizens; they understand the world's communities and are ready to discover their place in it.

## CHS Curriculum Area Framework for Learning – Year 9

<b>SUBJECT</b>	<b>BTEC Digital Information Technology Level 1/2</b>
<b>INTENT</b>	<p>Studying Digital Information Technology will broaden learners understanding of modern technologies offering vast insight into how individuals and organisations use them to communicate, collaborate and work in the modern world. As technology evolves, so does the potential threats to these systems. In turn, students will further their understanding and knowledge regarding the crucial need for cyber security before moving into a creative realm of User Interface design.</p> <p>We connect with computer systems all over the world, every day. The course offers a vibrant insight into the planning, design and creation of User Interfaces. From diverse project methodologies to colours that connect emotionally, down to the minute details found within design principles, learners will see through a project from start to finish, considering carefully along the way the impact of their decisions not just on the end-product, but the wider world.</p> <p>Learners will be inspired by the ever-changing world of data and how it is used, processed and analysed in order to identify new opportunities in a range of diverse industries. Students will develop key skills and understand processes that underpin the effective ways of working, considering the methods used to manipulate data in order to represent findings in a visually aesthetic way. By understanding how big data is playing a role in today's digital landscape, students will be challenged to identify the scope of what it has to offer in the future.</p> <p>We aim to develop happy, creative and successful learners that will flourish with skills and attitudes that are considered most important within the world of digital technology, preparing them for A-Level, level 3 BTECs or apprenticeships.</p>

**Department: Computing & Technology 2021 - 2022**

**Subject: BTEC Digital Information Technology**



# CHORLTON HIGH SCHOOL: CURRICULUM

<b>Year Group</b>	<b>9</b>					
<b>Rationale/ Narrative</b>	<p>Following on from their Key Stage 3 study, students will be taught topics that overlap between the Computer Science and current DIT qualifications throughout their common term. Students will acquire further digital literacy skills from their common term, through finding, evaluating and composing work using digital platforms, building students grammar, composition, typing skills and ability to design using technology. Students following the BTEC Digital Information Technology route will then move on to studying Component 3 of the course. As students need an opportunity to build their confidence in understanding the sector, context and attributes of the course before being assessed, students will begin the Spring term by studying Component 3 – ‘Effective Digital Working Practices’. All components (C1, C2 &amp; C3) are interrelated, however, Component 3 and the content covered lends itself well to both Component 1 and Component 2 coursework, giving students a foundation of knowledge regarding Digital Information Technology before applying this knowledge and skills to their coursework which they will complete the following year. Students then have the opportunity to sit their first attempt External Assessment in Year 10, and again in Year 11 following further revisiting of the topic.</p> <p><b>Common Term</b></p> <ul style="list-style-type: none"> <li>- During Autumn term, Students will begin by studying an introduction to Computer Systems focusing on to Input / Output / Storage devices and understand the processing and connections via embedded systems. Students will look at system diagrams for computer system as well as processes on a larger scale such as organisational system diagrams</li> <li>- students will move onto studying the <b>modern technologies and their impact</b>, this relates largely to how students have engaged with School over the past academic year and students will gain a deeper knowledge in how organizations and individuals use modern technologies to exchange information, communicate and complete work-related tasks, as well as access and manipulate data.</li> <li>- It is vital students understand the implication of these tools and technologies so students will consider the <b>legal impact and ethical considerations</b> of digital systems and their use. Students will look at how legislation covering data protection, computer crimes and intellectual property has an impact on the way digital systems are used.</li> <li>- Following on from this, Students will begin to understand the increased reliance of digital systems and it’s need to hold onto data and the nature of threats to data through looking at <b>Cyber Security</b>, ways in which computer systems are attacked, how they occur and potential impact of breaches as well as preventative measures.</li> <li>- Students will revisit <b>programming</b> and build upon the above knowledge by creating an authorized login system as part of a programming project.</li> </ul>					
	<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>Common Term</b></p> <ul style="list-style-type: none"> <li>• Introduction to Computer Systems &amp; Diagrams</li> <li>• Modern Technology &amp; Impact of modern technologies</li> </ul>	<p><b>Common Term</b></p> <ul style="list-style-type: none"> <li>• Cyber Security               <ul style="list-style-type: none"> <li>- System attacks and external threats</li> </ul> </li> </ul>	<p><b>C3: Learning Aim B: Wider Cyber Security Issues</b></p> <ul style="list-style-type: none"> <li>• User restrictions and finding weaknesses</li> </ul>	<p><b>C3: Learning Aim C: Wider Implications of digital systems</b></p> <ul style="list-style-type: none"> <li>• Shared Data</li> <li>• Environmental Issues</li> <li>• Equal Access</li> </ul>	<p><b>C3: Learning Aim D: Planning and Communication</b></p> <ul style="list-style-type: none"> <li>• Data Flow Diagrams</li> <li>• Flowcharts</li> <li>• System Diagrams</li> </ul>	<p><b>C1: Learning Aim A: Investigate User Interface Design for individuals and organisations</b></p> <p><b>User Interfaces</b></p> <ul style="list-style-type: none"> <li>• Range of uses</li> <li>• Factors effecting choice of UI</li> </ul>



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	<ul style="list-style-type: none"> <li>Legal impact and Ethical considerations</li> </ul>	<ul style="list-style-type: none"> <li>Internal threats and impact of breaches</li> <li>Programming Techniques &amp; Project.</li> </ul>	<ul style="list-style-type: none"> <li>Data level protection</li> <li>Policy, backups and data recovery</li> </ul>	<ul style="list-style-type: none"> <li>User Policies</li> <li>Data Protection</li> </ul>	<ul style="list-style-type: none"> <li>Tables</li> </ul>	<ul style="list-style-type: none"> <li>Hardware &amp; Software influences</li> <li><b>Audience Needs</b> <ul style="list-style-type: none"> <li>Accessibility Needs</li> <li>Skill Level</li> <li>Demographics</li> </ul> </li> <li><b>Design Principles</b> <ul style="list-style-type: none"> <li>Colours</li> <li>Font Style/Size</li> <li>Language</li> <li>Amount of info</li> <li>Layout</li> <li>User Perception/Attention</li> <li>Intuitive Design</li> </ul> </li> <li><b>Designing efficient UI' Project – Preparing for coursework Year 10.</b></li> </ul>
<b>SKILLS</b>	<ul style="list-style-type: none"> <li>Digital Literacy Skills</li> <li>Evaluation skills</li> <li>Metacognitive practice</li> <li>Identifying and selecting information</li> <li>Breaking down key information</li> </ul>	<ul style="list-style-type: none"> <li>Evaluation skills</li> <li>Metacognitive practice</li> <li>Exam technique</li> <li>Identifying and selecting information</li> <li>Breaking down key information</li> <li><b>Programming skills:</b> <ul style="list-style-type: none"> <li>Identifying and using variables</li> <li>Using operators</li> <li>Using inputs</li> <li>Using outputs</li> <li>Using sequence</li> <li>Using selection</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Digital Literacy Skills</li> <li>Evaluation skills</li> <li>Metacognitive practice</li> <li>Exam technique</li> <li>Identifying and selecting information</li> <li>Breaking down key information</li> </ul>	<ul style="list-style-type: none"> <li>Digital Literacy Skills</li> <li>Evaluation skills</li> <li>Metacognitive practice</li> <li>Exam technique</li> <li>Identifying and selecting information</li> <li>Breaking down key information</li> <li>Debating</li> </ul>	<ul style="list-style-type: none"> <li>Evaluation skills</li> <li>Metacognitive practice</li> <li>Exam technique</li> <li>Identifying and selecting information</li> <li>Breaking down key information</li> <li>Design</li> <li>Management</li> <li>Planning</li> </ul>	<ul style="list-style-type: none"> <li>Evaluation skills</li> <li>Metacognitive practice</li> <li>Exam technique</li> <li>Identifying and selecting information</li> <li>Breaking down key information</li> <li>Design Skills</li> <li>Analysis</li> <li>Accessibility</li> <li>Project Planning</li> <li>Time management</li> <li>Contingency</li> <li></li> </ul>
<b>ASSESSMENTS</b>	<ul style="list-style-type: none"> <li><b>Cloud Storage &amp; Computing</b> – ‘Letter’ addressed to school/organization analyzing impact of migration to cloud services.</li> </ul>	<ul style="list-style-type: none"> <li><b>Cyber Security – External Threats</b> - Classwork Piece (<i>Task 4 Internal Threats &amp; Impact of Breaches</i>)</li> <li><b>Mini – Programming Project</b> – Log-in system</li> </ul>	<ul style="list-style-type: none"> <li><b>Data Protection</b>– Classwork piece</li> <li><b>Disaster Recovery Policy</b> – Classwork piece</li> </ul>	<ul style="list-style-type: none"> <li><b>Environmental Impact</b> – <i>Extended Question</i>: Classwork piece</li> <li><b>Data Protection Act</b> – Classwork Piece</li> <li><b>Progress Checkpoint</b> based on content</li> </ul>	<ul style="list-style-type: none"> <li><b>Flowcharts</b> – Classwork Piece</li> <li><b>Tables</b> – InterRes Classwork Task</li> </ul>	<ul style="list-style-type: none"> <li><b>UI Analysis</b> – GUI/CLI/SPEECH Classwork piece</li> <li><b>UI Design Task</b> – Classwork piece</li> <li><b>Progress Checkpoint</b> based on content covered during Summer term.</li> <li></li> </ul>



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	<ul style="list-style-type: none"> <li>• <b>Modern Technology – Collaboration Tools:</b> Benefits to individuals &amp; organisations</li> </ul> <p><i>MS Forms Topic Tests to be completed for each 'unit' (Intorudction to Computer Systems. Modern Technology, Impact &amp; Ethical considerations)</i></p>	<p>as preventative measure.</p> <ul style="list-style-type: none"> <li>• <b>Progress Checkpoint</b> based on content covered during Autumn term.</li> </ul> <p><i>MS Forms Topic Tests to be completed for each 'unit' (Intorudction to Computer Systems. Modern Technology, Impact &amp; Ethical considerations)</i></p>		<p>covered during Spring term.</p>		
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