

# Year 10 Digital Information Technology Curriculum Overview



Year 10		HT1 Sept – Oct (8 weeks)	HT2 Nov – Dec (7 weeks)	HT3 (Jan – Feb (6 weeks)	HT4 Feb – Apr (6 weeks)	HT5 Apr – May (6 weeks)	HT6 Jun – Jul (6 weeks)
	<b>Topic</b>	<b>Component 1 Learning Aim A:</b> Preparation – user Interface design principles	<b>Component 1 Learning aim B:</b> Use project planning techniques to plan and design a user interface	<b>Component 3a - Exam Preparation.</b> Modern Technologies and impact of modern technologies	<b>Component 3b – Exam Preparation.</b> Threats to data, prevention, and management of threats to data.	<b>Component 3c – Exam</b> Wider implications of Digital Systems Exam Preparation. Policies Mock exams.	<b>Component 1 Learning aim C:</b> Develop and review a user interface
	<b>Why this and why now?</b>	<b>Prep work component 1 learning A-</b> Prep work for component 3. <b>Why now?</b> Key knowledge and understanding of subject specific terminology will allow students to be fully prepared for internal assessment and external assessment. Underpinning knowledge needed for (Component 3)	<b>Prep work component 1 learning B-</b> Prep work for component 3. <b>Why now?</b> Key knowledge and understanding of subject specific terminology will allow students to be fully prepared for internal assessment and external assessment. Underpinning knowledge needed for (Component 3)	<b>Component 3 learning A Why now?</b> <i>Building students skills and knowledge in preparation for external assessment in HT5</i>	<b>Component 3 Learning Aim B: Why now?</b> <i>Building students skills and knowledge in preparation for external assessment in HT5</i>	<b>Component 3 Learning Aim C: Why now?</b> <i>Building students skills and knowledge in preparation for external assessment in HT5</i> <b>External examination to take place at the end of this ½ term</b>	<b>Prep work component 1 learning C Why now?</b> Key knowledge and understanding of subject specific terminology will allow students to be fully prepared for internal assessment and external assessment. Underpinning knowledge needed for (Component 3)
	<b>Topics will be done in order of Learning aim for each component.</b>						
	<b>What is the essential knowledge that needs to be remembered?</b>	<b>C1. Learning Aim A:</b> Learners will carefully consider how effectively two different types of user interface meet a wide range of user interface design principles. They will be critical in their assessment of each user interface and will assess the positive and negative effects that each design principle has on the user and their ability to positively interact with the device using detailed relevant examples.	<b>C1. Learning Aim B:</b> Learners make full and effective use of project planning techniques. Learners will set smart aims and objectives for their project. They will provide a comprehensive range of project requirements, including all user requirements, input requirements, output requirements and user accessibility requirements. In their plan they will provide evidence of: -The use of suitable project planning tools to	<b>C3. Learning Aim A: Modern Technologies</b> Understand how and why modern technologies are used by organisations and stakeholders to access and manipulate data, and to provide access to systems and tools to complete tasks. Learners should understand the implications of these tools and technologies for organisations and stakeholders. Aspects to be learned: -Communication technologies	<b>C3. Learning Aim B: Cyber Security</b> Learners must understand how the increased reliance of organisations on digital systems to hold data and perform vital functions presents a range of challenges and dangers. They should understand the nature of threats to digital systems and ways that they can be mitigated through organisation policy, procedures, and the actions of individuals. They should be able to	<b>C3. Learning Aim C: The Wider Implications of Digital Systems</b> Learners should understand the wider implications of digital systems and their use. Learners should understand how legislation covering data protection, computer crimes and intellectual property has an impact on the way that organisations and individuals use digital systems and data. Learners should understand the procedures that	<b>C1. Learning Aim C: Develop and Review a User Interface</b> Learners will use their plan to create an effective user interface. All choices made will be appropriate to both the user requirements and the intended device. The user interface will show comprehensively: -All features, including the overall look and feel -How the user inputs data -How the interface responds and will output to the user -How the user navigates around the user interface. All user interactions will match user expectations. Learners will provide thorough relevant detail on how the user interface is

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		<p>Learners will assess:</p> <ul style="list-style-type: none"> <li>-To what extent both user interfaces meet specific user needs and support users with different accessibility needs, skill levels and demographics</li> <li>-To what extent each user interface matches user perceptions and retains user attention</li> <li>-The suitability of the chosen type of user interface and explore alternatives</li> <li>-Their reasons as to why an alternative type of user interface would or would not better meet the user needs</li> <li>-How intuitive the user interface is and how it could be developed further to better meet the needs of users</li> <li>-The different techniques that have been used to allow the user to use the interface efficiently, using detailed examples. For example, learners may assess how the use of keyboard shortcuts and making buttons more distinguishable/bigger improves and reduces selection time.</li> </ul>	<p>plan their timescales, including when tasks and sub-tasks will be completed</p> <ul style="list-style-type: none"> <li>-Key milestones, including when reviews will be completed with the user</li> <li>-Project constraints and potential risks that could affect the project and they will put together a comprehensive contingency plan, for example learners will show which tasks will be affected if other tasks are delayed</li> <li>-Which methodology they used to develop their plan and justify why it is the most appropriate. In their design, they will provide evidence of the following:</li> <li>-A comprehensive initial design of their user interface for at least four screens. Their initial design will meet all user requirements, input and output requirements and user accessibility needs</li> <li>-A range of methods that show in thorough detail the visualisation of the user interface and comprehensive details of what hardware and software is required to create the user interface</li> <li>-An effective test strategy,</li> </ul>	<ul style="list-style-type: none"> <li>-Cloud storage and computing</li> <li>-Cloud storage and traditional ICT compatibility</li> <li>-Modern technology and global aspects</li> <li>-Positive and negative impacts of technology on organisations and individuals.</li> </ul>	<p>apply knowledge of cyber security to a range of vocational contexts.</p> <p>Aspects to be learned:</p> <ul style="list-style-type: none"> <li>-Threats to data including internal and external threats</li> <li>-Impacts of security breaches</li> <li>-Protection and restriction of access</li> <li>-Improving security</li> <li>-Policies and procedures</li> <li>-Actions and responses</li> </ul>	<p>organisations must follow to conform to legal requirements and professional guidelines.</p> <p>Aspects to be learned:</p> <ul style="list-style-type: none"> <li>-Responsible use of technology</li> <li>-Sharing data</li> <li>-Environmental aspects to technology</li> <li>-Legal and Ethical use</li> <li>-Data protection principles</li> <li>-Criminality and computer systems</li> <li>-Planning communication systems</li> </ul>	<p>appropriate for the intended device and the impact it will have on the user. All user requirements will have been met.</p> <p>Learners will obtain feedback from potential users and will refine their user interface using an iterative approach. All iterations will clearly improve the effectiveness and efficiency of the user interface. The changes made during each iteration will be well documented. Learners will assess the strengths and weaknesses of their user interface. They will include assessment of:</p> <ul style="list-style-type: none"> <li>-How the user interface is easy to use and its suitability for the audience and purpose</li> <li>-How effectively they have made use of different design principles</li> <li>-How the user interface can be developed further to better meet both user requirements and design principles</li> <li>-The strengths and weaknesses of their project planning skills; this will include comprehensive detail on effective use of their chosen project planning tools and methodologies, and how relevant they were to the project</li> <li>-How they overcame project constraints and the impact of using an iterative design approach.</li> </ul>
		<p>Learners can demonstrate a thorough knowledge and understanding of a broad range of facts, terms and issues. They can describe detailed and complex processes accurately. Learners can effectively apply their knowledge and understanding of facts, terms, issues and processes. They can solve complex problems in vocational contexts. Learners analyse vocational contexts by drawing on key concepts. They can make valid decisions on application of digital systems and can explain potential implications comprehensively. Learners make use of concepts to make clear, insightful evaluative statements about the use of digital systems in vocational contexts. They can make effective use of links between concepts to support judgements and explore alternatives</p>					

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			outlining what methods they will use to test their user interface.				
<b>What is the assessment intent and how will you assess?</b>	Approved Assignment Brief Learning Aim A  To assess progress against specified criteria of Learning Aim A of Component 1.  L1P / L1M / L2P / L2M / L2D	Approved Assignment Brief Learning Aim B  To assess progress against specified criteria of Learning Aim B of Component 1  L1P / L1M / L2P / L2M / L2D	To prepare learners for external assessment – learning Aim A To give learners individual feedback relating to gaps in knowledge and giving learners a clear understanding of how to answer questions correctly. Adapted and balanced examination-style questions that meet the assessment objectives in Learning aim A. Formal Written assessment in Feb.	To prepare learners for external assessment – learning Aim A and B To give learners individual feedback relating to gaps in knowledge and giving learners a clear understanding of how to answer questions correctly. Adapted and balanced examination-style questions that meet the assessment objectives in Learning aim B. Formal Written assessment in April.	To prepare learners for external assessment – learning Aim A, B and C To give learners individual feedback relating to gaps in knowledge and giving learners a clear understanding of how to answer questions correctly. Adapted and balanced examination-style questions to meet needs identified throughout and because of the Mock Examinations. Final Examination Mid-May 2021	Approved Assignment Brief Learning Aim C  To assess progress against specified criteria of Learning Aim C of Component 1  L1P / L1M / L2P / L2M / L2D	
<b>What should the end point look like</b>	Learners will be able to assess how effectively two different types of user interface meet the design principles and user needs, with justified examples	Learners will be able to create an appropriate project plan for the design of a user interface that makes full and effective use of project planning techniques and create a comprehensive initial design that shows how it meets all user requirements.	Students will have completed work booklet Component 3 Learning aim A. Mock assessment papers for learning aim A. Within written responses students will show an understanding of subject specific terminology and an understanding of how to answer question correctly – giving reasons for answers.	Students will have completed work booklet Component 3 Learning aim B. Mock assessment papers for learning aims A and B. Within written responses students will show an understanding of subject specific terminology and an understanding of how to answer question correctly	Students will have completed work booklet Component 3 Learning aim C. Mock exam papers Within written responses students will show an understanding of subject specific terminology and an understanding of how to answer question correctly.	Learners will be able to Use their plan to develop and refine an effective user interface that shows all features and assess the strengths and weaknesses of their user interface and project plan, justifying decisions made	
<b>Wider Curriculum Links</b>	The learning will link to current affairs – GREAT Lives, and the world outside of school. Numeracy and Literacy skills will be used as well as references to technological developments, historical events, and geographical areas. <b>Curriculum links to:</b>	The learning will link to current affairs – GREAT Lives, and the world outside of school. Numeracy and Literacy skills will be used as well as references to technological developments, historical events, and geographical areas. <b>Curriculum links to:</b>	The learning will link to current affairs – GREAT Lives, and the world outside of school. Numeracy and Literacy skills will be used as well as references to technological developments, historical events, and geographical areas. <b>Curriculum links to:</b> Maths: English: Science	The learning will link to current affairs – GREAT Lives, and the world outside of school. Numeracy and Literacy skills will be used as well as references to technological developments, historical events, and geographical areas. <b>Curriculum links to:</b> Maths: English: Science	The learning will link to current affairs – GREAT Lives, and the world outside of school. Numeracy and Literacy skills will be used as well as references to technological developments, historical events, and geographical areas. <b>Curriculum links to:</b> Maths: English: Science	The learning will link to current affairs – GREAT Lives, and the world outside of school. Numeracy and Literacy skills will be used as well as references to technological developments, historical events, and geographical areas. <b>Curriculum links to:</b>	

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