Subject: ICT

Year Group: 10

Week beginning	Subject Topic	Key Learning points/big questions	Independent/Home learning	Linked Assessment	Resources
2/11	A: Investigate user interface design for individuals and organisations A4 Designing an efficient user interface	A: Investigate user interface design for individuals and organisations Reducing the user selection time: appropriate object sizes, object emphasis, grouping related objects Learning aim A: assessment practice	Students think of an app, website or program they have used that has run slowly and consider how it made them feel – angry, frustrated etc. Students should discuss why they felt this way. Students research different tools and features that can be used to improve the speed of user interfaces, including: use of keyboard shortcuts, reversal of actions, informative feedback and distinguishable objects. Students research five different keyboard shortcuts for either a Windows PC or Apple Mac computer. For each shortcut, they say what the shortcut is and what it does.	Coursework practice case study: https://eggbuckland.sharepoint.com/:w:/g/ict/EX5AEVgwdWpCohT7GOwM2JcBeyeTwek0l1P0XRlCRaWd5A?e=peqAUf	User Interface mini-web https://www.teach-ict.com/gcse_new/computer%20systems/user_interface/miniweb/pg6.htm ICT Knowledge Organiser Share-point Folder https://eggbuckland.sharepoint.com/:b:/g/ict/
9/11	A: Investigate user interface design for individuals and organisations	Component 1: Learning aim A: formal assessment	Students practise for assessment independently, using suggested activities below. **Suggested activity 1:** choose two different types of user interface. For each of their chosen user interfaces, students identify where different design principles have been used, assess how the different design principles improve the effectiveness of the user interface for its users, assess the positive and negative effects that each design principle has and assess how each design principle supports the user to efficiently use the interface.		

			Suggested activity 2: for each of their chosen user interfaces above, students describe how intuitive the user interface is and how it could be developed further to better meet the needs of users, assess to what extent the interfaces support users with different accessibility needs, skill levels and demographics, assess to what extent they match user perceptions and the methods that are used to sustain the users' attention, assess their suitability and describe an alternative user interface that could have been used and give clear reasons why the alternative type of user interface would better meet the user needs. Students to reflect on how they approached the practice activities, including areas they enjoyed and areas they found more difficult.		EfJuukhAZChHmHfBkV-e2bkBwO2fdLKg6EL-GpUZ8cweyg?e=YypsoU 'E-textbook Exploring User Interface Design' https://eggbuckland.sharepoint.com/:b:/g/ict/EfJuukhAZChHmHfBkV-e2bkBwO2fdLKg6EL-GpUZ8cweyg?e=wonYTJ 'History of the Graphical User Interface' video
16/11	B: Use project planning techniques to plan and design a user interface B1 Project planning techniques	Project methodologies: waterfall, iterative and Agile Co-coordinating project tasks: Gantt charts, PERT charts and critical path diagrams	Students research an IT project that has failed and share their findings with the class. For example, this could be a website that had been partly developed or a large-scale system that had been partly developed and then abandoned. Students should then find out the reasons for this. Students should try to tease out the root of the problem. For example, rather than saying 'poor planning', students should look at the reasons why the planning was poor. For example, not planning the budget properly or not considering all client needs properly.		

			Research what a project methodology is and the different project methodologies, including the waterfall model and iterative/agile model. Research the benefits and drawbacks of using each methodology and share their findings with the class. Explain why a company such as a mobile phone app developer would make use of an iterative/agile methodology when creating user interfaces for their apps rather than a waterfall methodology. Plenary activities Explain the common reasons why projects fail. Give reasons why an iterative methodology would be used. Give reasons why a waterfall method would be used.		https://eggbuckland.sharepoint.com/:f:/g/ict/EiRImp8266pKiyQTAe0n38gB1lOM2dhs0tSUqusj1etEsQ?e=TVvQMC
23/11	Co-ordinating project tasks [Component 1, B1, Project planning techniques] B: Use project planning techniques to plan and design a user interface B2 Create a project plan	Basic project planning tools: task lists, graphical descriptions, written descriptions and mood boards Planning the project basics: aims and objectives, audience and purpose	Students think of a project they have completed in school or at a club and consider what methods – if any – they used to plan and track the progress of tasks. Students consider how useful their plan was and if they continued to work with it. If students have not made use of a project plan, then students can consider why they didn't have one and the impacts of not creating one.		

			Research introduced to the purpose of and shown how to create Gantt charts, PERT charts and critical path diagrams. Research key terms: 'task dependency', 'task length', 'slack time' and 'critical path'. Research the following time scales and dependencies: Task A – 1 day, no dependencies; Task B – 3 days, dependency on A; Task C – 60 days, dependency on B; Task D – 1 day, dependency on A; Task F – 2 days, dependency on C and E; Task G – 15 days, dependency on F; Task H – 40 days, dependency on E and G. Students use the data to create a Gantt chart, PERT chart and critical path diagram. Research the benefits and drawbacks of each diagram.		
30/11	B: Use project planning techniques to plan and design a user interface B2 Create a project plan	Defining the project requirements: user requirements, output requirements, input requirements and user accessibility requirements Project constraints and risks: time, resources, task dependencies, security and contingency planning	Students should explore the project brief. They should read through the brief, filter out the information that is not important and then start to think about what is actually required. Students are required to use this project brief throughout the remainder of this component and therefore would benefit from having a good understanding of what is required. Students research basic tools that they can use to plan their project. These include task lists, graphical descriptions, written descriptions and mood boards.		

			Students create their own mind map to illustrate a graphical description of the project brief. Students produce a written description of the buying page requirements given in the brief. Students then discuss the benefits and drawbacks of using graphical and written descriptions for this project. Students research different examples of mood boards on the internet.		
7/12	B: Use project planning techniques to plan and design a user interface B3 Create an initial design	Planning project timescales: overall timescales, when tasks will be completed, key milestones and resources What is a design specification: user requirements, output requirements, input requirements and user accessibility requirements	Students demonstrate their understanding of a design specification. Students explain what they should consider when creating the various elements of the specification and why these should be considered at the design stage.		
14/12	B: Use project planning techniques to plan and design a user interface B3 Create an initial design	Designing the visuals: sketches and storyboarding Defining the hardware, software and testing strategy	Students explain the purpose of a storyboard and storyboard features. Students explain the benefits of using sketches and storyboards.		
Christmas					