

Meden School Curriculum Planning							
Subject	BTEC DIT	Year Group	10	Sequence No.	MTP2	Topic	Comp 1 Learning Aim B

Retrieval	Core Knowledge	Student Thinking
What do teachers need retrieve from students before they start teaching new content?	What specific ambitious knowledge do teachers need teach students in this sequence of learning?	What real life examples can be applied to this sequence of learning to development of our students thinking, encouraging them to see the inequalities around them and 'do something about them!'
<p>In ICT / CS at Meden in KS3, pupils are taught to:</p> <ul style="list-style-type: none"> <li>design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems</li> <li>undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users</li> <li>create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability</li> </ul>	<p>In component 1, students will learn different project planning techniques that can be used to plan and deliver a project that meets a set of user requirements (needs of the user using the device). You will learn the different design principles (colours, buttons, layout, imagery) that can be used to design effective user interfaces (the point at which human users interact with a computer, website or application) and apply appropriate project planning techniques to create a user interface that meets different audience requirements.</p> <p>B1 Project planning techniques: Learners will understand the use of different planning tools and design methodologies that can be used to plan, monitor and execute projects.</p> <ul style="list-style-type: none"> <li>Planning tools: <ul style="list-style-type: none"> <li>task lists</li> <li>written or graphical descriptions</li> <li>Gantt charts (a visual display of the whole project, timelines and deadlines of all tasks,; relationships and dependencies between the various activities,; project phases.)</li> <li>mood boards (an arrangement of images, materials, pieces of text, etc. intended to evoke or project a particular style or concept.)</li> </ul> </li> </ul>	<p>Searching and applying for jobs in ICT , IT and computing.</p> <p>Learners will then be able to select appropriate project planning techniques to be able to plan and create an effective user interface that meets a set of defined user requirements.</p> <p>Be able to plan and design a user interface</p> <p>Discuss and evaluate existing user interfaces, describing current design trends.</p> <p>Be able to plan a project and create smart goals and objectives.</p> <p>Improving society</p>

<ul style="list-style-type: none"> <li>• understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns</li> </ul>	<ul style="list-style-type: none"> <li>o mind maps.</li> <li>● Methodologies: <ul style="list-style-type: none"> <li>o waterfall (is a sequential development process that flows like a waterfall through all phases of a project (analysis, design, development, and testing, for example), with each phase completely wrapping up before the next phase begins.)</li> <li>o agile (a way to manage a project by breaking it up into several phases. It involves constant collaboration with stakeholders and continuous improvement at every stage. Once the work begins, teams cycle through a process of planning, executing, and evaluating.)</li> <li>o scrum. (Scrum methodology takes its name from Rugby and advocates for a planning meeting at the start of the sprint, where team members figure out how many items they can commit to, and then create a sprint backlog – a list of the tasks to perform during the sprint.)</li> </ul> </li> </ul> <p>B2 Creating a project proposal and plan Learners will understand project planning techniques used to develop a project proposal and project plan for the development of a user interface for a given brief.</p> <p>Project proposal:</p> <ul style="list-style-type: none"> <li>● Purpose and audience.</li> <li>● Project requirements:</li> </ul> <ul style="list-style-type: none"> <li>o user requirements</li> <li>o output requirements, to include visual, audio, haptic</li> <li>o input requirements, to include mouse, keyboard, voice, touch.</li> </ul> <ul style="list-style-type: none"> <li>● User accessibility requirements.</li> <li>● Constraints:</li> <li>o time</li> </ul>	<ul style="list-style-type: none"> <li>• How could your project design be of benefit to society?</li> <li>• Which groups in society could it benefit?</li> </ul>
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	<ul style="list-style-type: none"> <li>o resources</li> <li>o task dependencies</li> <li>o security.</li> </ul> <p>Project plan:</p> <ul style="list-style-type: none"> <li>● Timescales: <ul style="list-style-type: none"> <li>o overall timescale</li> <li>o when tasks will be completed, including sub-tasks</li> <li>o key milestones.</li> </ul> </li> </ul> <p>B3 Creating an initial design: Learners will understand how to produce an initial design using design principles.</p> <ul style="list-style-type: none"> <li>● Producing a design that meets: <ul style="list-style-type: none"> <li>o the user requirements, including input and output requirements</li> <li>o user accessibility needs.</li> </ul> </li> <li>● Producing a design specification that includes: <ul style="list-style-type: none"> <li>o visualisation, to include storyboards, sketches</li> <li>o hardware requirements</li> <li>o software requirements.</li> </ul> </li> <li>● Producing a design that allows for: <ul style="list-style-type: none"> <li>o increased user confidence/familiarity</li> <li>o reduced learning time of new interfaces/features</li> <li>o reduced time to complete tasks</li> <li>o increased user attention</li> <li>o reduced need for specialised knowledge</li> </ul> </li> </ul> <p>B4 Developing a user interface Learners will understand how to use their design to produce a user interface.</p> <ul style="list-style-type: none"> <li>● Initial design using the design principles listed in A3 Design principles.</li> </ul>	
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<p>Vocab List:</p> <p>Planning tools, task lists, Gantt charts, mood boards, mindmaps, methodologies, waterfall, agile, scrum, purpose, audience, project requirements, user requirements, output requirements, visual, audio, haptic, input requirements, mouse, keyboard, voice, touch, user accessibility requirements, constraints, resources, task dependencies, security, timescales, sub-tasks, key milestones, visualisation, storyboards, sketches, hardware requirements, software requirements, user confidence, user familiarity, learning time, user attention, specialised knowledge, colours, house style, textures, font style, font size, appropriate language, skill level, white space, layout, consistency, grouping, navigational components, search fields, breadcrumbs, icons, dropdown lists, tick boxes, toggles, user perception, interactions, pop-up messages, animation, autofill, tip text.</p>		