

Meden School Curriculum Planning							
Subject	BTEC DIT	Year Group	11	Sequence No.	MTP 5	Topic	Component 3 Learning aim A

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> <li>understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and</li> </ul>	<p>This component will give students an opportunity to explore how the developments in technology over recent years have enabled modern organisations to communicate and collaborate more effectively than ever before. The component is designed to allow students to explore the digital systems available to organisations and how their features have an impact on the way organisations operate. Students will explore how developments in technology have led to more inclusive and flexible working environments, and how regulation and ethical and security concerns influence the way in which organisations operate. Students will analyse information in a range of vocational contexts so that students develop a greater understanding of the use of digital systems by organisations and so that students are able to make reasoned judgements on the systems. In this component, students will learn about how organisations can use technology safely and about the cyber security issues when working in a digital organisation.</p> <p>A1 Modern technologies 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 in order to complete tasks. Learners should understand the implications of these tools and technologies for organisations and stakeholders.</p> <ul style="list-style-type: none"> <li>Communication technologies: <ul style="list-style-type: none"> <li>o setting up ad hoc networks (open Wi-Fi, tethering/personal hotspot)</li> <li>o security issues with open networks</li> </ul> </li> </ul>	<p>Searching and applying for jobs in ICT, IT and computing.</p> <p>Be able to plan a project and create smart goals and objectives.</p> <p>Students will be able to use spreadsheet software to design and analyse data.</p> <p>To create charts to analyse data.</p>

<p>privacy; recognise inappropriate content, contact and conduct, and know how to report concerns</p>	<ul style="list-style-type: none"> <li>o performance issues with ad hoc networks</li> <li>o issues affecting network availability (rural versus city locations, developed versus developing countries, available infrastructure, mobile network coverage, blackspots).</li> <li>● Features and uses of cloud storage: <ul style="list-style-type: none"> <li>o setting and sharing of access rights</li> <li>o synchronisation of cloud and individual devices</li> <li>o availability (24/7)</li> <li>o scalability (getting more by renting/freeing to save money).</li> </ul> </li> <li>● Features and uses of cloud computing: <ul style="list-style-type: none"> <li>o online applications</li> <li>o consistency of version between users (features, file types)</li> <li>o single shared instance of a file</li> <li>o collaboration tools/features.</li> </ul> </li> <li>● How the selection of platforms and services impacts on the use of cloud technologies: <ul style="list-style-type: none"> <li>o number and complexity of features</li> <li>o paid for versus free</li> <li>o interface design (layout, accessibility, mobile versus desktop)</li> <li>o available devices.</li> </ul> </li> <li>● How cloud and 'traditional' systems are used together: <ul style="list-style-type: none"> <li>o device synchronisation</li> <li>o online/offline working</li> <li>o notifications.</li> </ul> </li> <li>● Implications for organisations when choosing cloud technologies: <ul style="list-style-type: none"> <li>o consideration of disaster recovery policies (service provider's, organisation's)</li> <li>o security of data (location, service provider's security procedures and features)</li> <li>o compatibility</li> <li>o maintenance (software updates, downtime, staff expertise)</li> <li>o getting a service/storage up and running quickly</li> </ul> </li> </ul>	
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	<p>o performance considerations (responsiveness to user, complexity of task, available devices and communication technologies).</p> <p>A2 Impact of modern technologies: Learners should understand how modern technologies impact on the way organisations perform tasks. Learners should understand how technologies are used to manage teams, to enable stakeholders to access tools and services, and to communicate effectively. Learners should understand the positive and negative impact that the use of modern technologies has on organisations and stakeholders.</p> <ul style="list-style-type: none"> <li>● Changes to modern teams facilitated by modern technologies: <ul style="list-style-type: none"> <li>o world teams (not bound by geographical restrictions, diversity)</li> <li>o multicultural</li> <li>o inclusivity (facilitation of member’s needs)</li> <li>o 24/7/365 (no set work hours, team members in different time zones)</li> <li>o flexibility (remote working versus office based, permanent versus casual staff).</li> </ul> </li> <li>● How modern technologies can be used to manage modern teams: <ul style="list-style-type: none"> <li>o collaboration tools</li> <li>o communication tools</li> <li>o scheduling and planning tools.</li> </ul> </li> <li>● How organisations use modern technologies to communicate with stakeholders: <ul style="list-style-type: none"> <li>o communication platforms (website, social media, email, voice communication)</li> <li>o selection of appropriate communication channels (private/direct message, public status update) for sharing information, data and media.</li> </ul> </li> <li>● How modern technologies aid inclusivity and accessibility: <ul style="list-style-type: none"> <li>o interface design (layout, font and colour selection)</li> <li>o accessibility features (screen reader support, alt text, adjustable typeface/font size, text to speech/’listen to this page’)</li> <li>o flexibility of work hours and locations.</li> </ul> </li> </ul>	
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	<ul style="list-style-type: none"> <li>● Positive and negative impacts of modern technologies on organisations in terms of: <ul style="list-style-type: none"> <li>o required infrastructure (communication technologies, devices, local and web-based platforms)</li> <li>o demand on infrastructure of chosen tools/platforms</li> <li>o availability of infrastructure</li> <li>o 24/7 access or security of distributed/distributed data</li> <li>o collaboration or inclusivity (age, health, additional needs, multicultural)</li> <li>o accessibility (meeting legal obligations, provision requirements)</li> <li>o remote working.</li> </ul> </li>   <li>● Positive and negative impacts of modern technologies on individuals: <ul style="list-style-type: none"> <li>o flexibility (home/remote working)</li> <li>o working styles (choice of time, device, location)</li> <li>o impact on individual's mental wellbeing (depression, loneliness, self-confidence, separation from stressful environment, feel in control of own schedule, schedule adjusted to meet needs of family, less time commuting).</li> </ul> </li> </ul>	
<p>Vocab List:</p> <p>Ad hoc network, open Wi-Fi, tethering, personal hotspot, developed/developing countries, infrastructure, network coverage, blackspot, access rights, synchronisation, availability, scalability, consistency, cloud storage, cloud computing, file versions, interface design, lastudentst , accessibility, notifications, disaster recovery, data security, compatibility, downtime, responsiveness, complexity, diversity, multicultural, inclusivity, flexibility, 24/7/365, collaboration tools, communication platforms, stakeholders, alt text, screen reader, depression, stress.</p>		