

**Scheme of Work 2020-2021**  
**Subject: Information Technology**

**Year Group: 12**

**Specification: BTEC Level 3 Information Technology – Unit 2 - Creating Systems to Manage Information**

Lesson No	Topic & Objectives	Big Question – What will students learn?	Key Activities & Specialist Terminology (Do Now Task / Starter/Tasks/Plenary)	Planned Assessment	Homework or flipped learning resources <b>DODDLE resources</b>	Lit Num SMSC Codes
12/4/2021	<p><b>C1 Producing a database solution</b> Devising and using SQL statements.</p>	<p><b>Can you remember SQL?</b></p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Recap on SQL and relational algebra.</li> <li>• <b>Tutor-led practical demonstration:</b> Using SQL statement to extract data.</li> <li>• <b>Independent learning activity:</b> Learners develop SQL statement to extract data from their databases and modify it. See link: Introduction to Access SQL in the following link <a href="https://support.office.com/en-us/article/Introduction-to-Access-SQL-d5f21d10-cd73-4507-925e-bb26e377fe7e">https://support.office.com/en-us/article/Introduction-to-Access-SQL-d5f21d10-cd73-4507-925e-bb26e377fe7e</a></li> <li>• <b>Plenary:</b> Feedback and Q&amp;A on the SQL activity, how useful is the data the SQL extracts from the database, does it meet the user requirements?</li> </ul>	<p>Planned Assessment for Learning Aim C – <i>in class assessment – mock walk through</i></p>	<p>Revision workbook Revision Guide pages 80 -91</p>	<p>Lit Social  So8 C3 Sp2 Sp5</p>
19/4/2021	<p><b>C1 Producing a database solution</b> Applying security measures.</p>	<p><b>Why are passwords important?</b></p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Recap on the importance of security with database applications.</li> <li>• <b>Tutor-led practical demonstration:</b> Setting up passwords and access levels. See links: Encrypt a database by using a database password and How to Set Microsoft Access Password in the following link Links for demo:</li> </ul>	<p>Planned Assessment for Learning Aim C – <i>in class assessment – mock walk through</i></p>	<p>Revision workbook Revision Guide pages 80 -91</p>	<p>Lit Social  So8 C3 Sp2 Sp5</p>

			<p>Encrypt a database by using a database password</p> <p><a href="https://support.office.com/en-gb/article/Encrypt-a-database-by-using-a-database-password-fe1cc5fe-f9a5-4784-b090-fdb2673457ab">https://support.office.com/en-gb/article/Encrypt-a-database-by-using-a-database-password-fe1cc5fe-f9a5-4784-b090-fdb2673457ab</a></p> <p>How to Set Microsoft Access Password</p> <p><a href="http://www.youtube.com/watch?v=hyI8VKLxy2o">www.youtube.com/watch?v=hyI8VKLxy2o</a></p> <ul style="list-style-type: none"> <li>• <b>Independent learning activity:</b> Learners set up passwords and access levels for their database.</li> <li>• <b>Plenary:</b> Feedback and Q&amp;A on the passwords and access levels activity, has an appropriate level of security been attained?</li> </ul>			
26/4/2021	<p><b>C2 Testing and refining the database solution</b></p> <p>Different types of testing selection.</p> <p><b>C2 Testing and refining the database solution</b></p> <p>Use of appropriate test data.</p>	<b>Why is testing important?</b>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Recap on previous lesson.</li> <li>• <b>Tutor presentation:</b> Recap on types of testing, test plans and test data.</li> <li>• <b>Independent learning activity:</b> Learners create a test plan with test data for their case study database.</li> <li>• <b>Plenary:</b> Feedback on practical activity. Evaluation of the test plans, will they test the database sufficiently?</li> </ul>	Planned Assessment for Learning Aim C – <i>in class assessment – mock walk through</i>	Revision workbook  Revision Guide pages 80 -91	Lit  Social  So8 C3 Sp2 Sp5
3/5/2021	<p><b>C2 Testing and refining the database solution</b></p> <p>Recording appropriate test documentation.</p>	<b>Why is testing important?</b>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Recap on previous lesson.</li> <li>• <b>Independent learning activity:</b> Learners use previously created test plans to test their case study database.</li> <li>• <b>Plenary:</b> Feedback on practical activity.</li> </ul>	Planned Assessment for Learning Aim C – <i>in class assessment – mock walk through</i>	Revision workbook  Revision Guide pages 80 -91	Lit  Social  So8 C3 Sp2 Sp5

10/5/2021	<p><b>C2 Testing and refining the database solution</b></p> <p>Using testing outcomes to improve and refine a database solution.</p>	<p><b>Why is testing important?</b></p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Recap on previous lesson.</li> <li>• <b>Tutor-led discussion:</b> Feedback from testing, how testing can help improve and refine a database.</li> <li>• <b>Independent learning activity:</b> Learners investigate improvements they can make to their database based on the testing completed.</li> <li>• <b>Tutor-led discussion:</b> how can we evaluate the case study database? Ways to judge the quality of the solution created.</li> <li>• <b>Plenary:</b> Review of the case study activity.</li> </ul>	<p>Planned Assessment for Learning Aim C – <i>in class assessment</i></p>	<p>Revision workbook</p> <p>Revision Guide pages 80 -91</p>	<p>Lit</p> <p>Social</p> <p>So8 C3 Sp2 Sp5</p>
17/5/2021	<p><b>D1 Database design evaluation</b></p>	<p><b>Why is evaluating a system important?</b></p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduction to the topic.</li> <li>• <b>Tutor-led discussion:</b> Evaluation of the process of completing normalisation, creation of ERD and data dictionary. Comparison to actual database produced. See link: Evaluating your Project (this is a more general document, but fits for databases also as evaluation should be a generic process) in the following link <a href="http://som.flinders.edu.au/FUSA/SAC_HRU/PDF/briefs/pracb_1_Evaluating_Your_Project.pdf">http://som.flinders.edu.au/FUSA/SAC_HRU/PDF/briefs/pracb_1_Evaluating_Your_Project.pdf</a></li> <li>• <b>Small-group activity:</b> Learners review their design for the case study database and consider how it might be improved.</li> <li>• <b>Tutor-led discussion:</b> Feedback from the activity, discuss how to ensure the design can fully cover the required functionality and requirements of users.</li> </ul>	<p>Planned Assessment for Learning Aim C – <i>in class assessment – mock walk through</i></p>	<p>Revision workbook</p> <p>Revision Guide pages 80 -91</p>	<p>Lit</p> <p>Social</p> <p>So8 C3 Sp2 Sp5</p>

			<ul style="list-style-type: none"> <li>• <b>Plenary:</b> Recap on design evaluation, Q &amp; A to check learner understanding.</li> </ul>			
24/5/2021	<b>D2 Evaluation of database testing</b> <b>D3 Evaluation of the database</b>	<b>Why is evaluating a system important?</b>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> What makes a good database?</li> <li>• <b>Tutor-led discussion:</b> Evaluating the strengths and weaknesses of a database.</li> <li>• <b>Small-group activity:</b> Learners evaluate databases produced by other learners and identify strengths and weaknesses.</li> <li>• <b>Tutor-led discussion:</b> Has your database been tested enough. How can testing be made better? How much testing is enough?</li> <li>• <b>Tutor-led discussion:</b> Feedback from the activity, learners discuss their evaluations, common themes identified.</li> </ul>	Planned Assessment for Learning Aim C – <i>in class assessment – mock walk through</i>	Revision workbook  Revision Guide pages 80 -91	Lit  Social  So8 C3 Sp2 Sp5

Mock Unit 2 Exam  
Please note this is a 5 hour exam and is computer based.

**Scheme of Work 2019 - 2020**  
**Subject: Information Technology**

**Year Group: 12**  
**Specification: BTEC Level 3 Information Technology – Unit 1 – Information Technology Systems**

Lesson No	Topic & Objectives	Big Question – What will students learn?	Key Activities & Specialist Terminology (Do Now Task / Starter/Tasks/Plenary)	Planned Assessment	Homework or flipped learning resources  DODDLE resources	Lit Num SMSC Codes
7/9/2020 – Lesson 1	<b>A1 Digital devices, their functions and use</b>	What are digital and peripheral devices?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the unit explaining that the content will be assessed by a traditional examination and that they will need to be able to</li> </ul>		Quiz about common devices, hardware and software to establish learners	Lit  Social

	<p><b>A2 Peripheral devices and media</b></p>		<p>apply all their knowledge in context. The following link <a href="http://www.cs.ucr.edu/~gusta/vistech/VT_2_e_ch06_ppt.pdf">www.cs.ucr.edu/~gusta/vistech/VT_2_e_ch06_ppt.pdf</a> to the presentation gives some useful detail that the tutor could use as part of the introduction to the session.</p> <ul style="list-style-type: none"> <li>• <b>Small group activity:</b> Learners thought shower IT systems that they have experience of/exposure to.</li> <li>• <b>Class discussion:</b> Discuss and share ideas. Facilitate the discussion to highlight the vast range of IT systems that learners interact with daily and how some systems are formed by connecting smaller systems.</li> </ul> <p>See the following links  <a href="http://www.computerhope.com/jargon/i/inp_utdev.htm">www.computerhope.com/jargon/i/inp_utdev.htm</a>  <a href="http://www.computerhope.com/jargon/o/ou_tputde.htm">www.computerhope.com/jargon/o/ou_tputde.htm</a> for information on input and output devices:</p> <ul style="list-style-type: none"> <li>• <b>Small group activity:</b> Learners to expand their thoughts and ideas on the systems that they use.</li> </ul>		<p>understanding of technical vocabulary</p>	<p>So8 C3 Sp2 Sp5</p>
<p>7/9/2020 – Lesson 2</p>	<p><b>A1 Digital devices, their functions and use</b> Function and use of digital devices – education and training.</p> <p><b>A2 Peripheral devices and media</b></p> <p><b>C1 Online systems</b></p>	<p>What are the functions of the digital devices and peripherals?</p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the lesson and use Q&amp;A sessions to establish learner understanding of input-process-output and common components of an IT system that provides these functions.</li> </ul> <p><b>Independent learning activity:</b> Learners to conduct research in to the IT systems used by education and training organisations and how they meet specific needs. Learners should make a note of their findings. For more information see videos in this following link <a href="http://www.youtube.com/watch?v=mzi2RIt">www.youtube.com/watch?v=mzi2RIt</a></p>			<p>Lit</p> <p>Social</p> <p>So8 Sp2 Sp5</p>

			<a href="https://www.youtube.com/watch?v=2N1I6sOhDiw">8 nkand www.youtube.com/watch?v=2N1I6sOhDiw</a> . <ul style="list-style-type: none"> <li>• <b>Small group discussion:</b> Learners to discuss their findings and share ideas in pairs or small groups.</li> </ul>			
14/9/2020 – Lesson 1	<b>A1 Digital devices, their functions and use</b> Function and use of digital devices – Personal/social.	How can digital devices meet individual needs?	<ul style="list-style-type: none"> <li>• <b>Independent learning activity:</b> Learners to conduct research, and draw on their own experiences to produce notes on IT systems used for personal and social functions. Learners should expand on their understanding from the previous lesson and should consider how the identified systems meet particular needs.</li> <li>• <b>Class discussion:</b> As a class, discuss findings and share ideas.</li> <li>• <b>Independent learning:</b> Set learners a challenge to identify an example of IT systems being used in a new, innovative way in either of the areas researched over the last two lessons.</li> </ul>	Learners to answer a short exam-style question relating to the topic covered in the last lesson.		Lit Social So8 Sp2 Sp5
14/9/2020 – Lesson 2	<b>A1 Digital devices, their functions and use</b> Function and use of digital devices – retail. <b>A2 Peripheral devices and media</b> <b>E1 Online services</b>	How IT systems support retail businesses?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Discuss the use of IT in retail identifying key areas where IT may be used (eg customer service, supporting staff or logistics).</li> <li>• <b>Independent learning activity 1:</b> Learners to conduct independent research on use of IT systems in retail. See links to videos on Inside Amazon and Amazon’s robot army in the following links  <a href="https://www.youtube.com/watch?v=zknLfU7GJIw">www.youtube.com/watch?v=zknLfU7GJIw</a>            Amazon’s robots  <a href="https://www.youtube.com/watch?v=g6DIFpa0I6A">www.youtube.com/watch?v=g6DIFpa0I6A</a> </li> </ul>		Assessment Activity (Private Lesson)	Lit Social So8 C3 Sp2 Sp5

			<p><a href="http://www.youtube.com/watch?v=UtBa9yVZBJM">www.youtube.com/watch?v=UtBa9yVZBJM</a></p> <ul style="list-style-type: none"> <li>• <b>Independent learning activity 2:</b> Learners to prepare questions and areas of further clarification required ahead of guest speaker/visit.</li> </ul>			
21/9/2020 – Lesson 1	<p><b>A1 Digital devices, their functions and use</b> Function and use of digital devices – organisational use.</p> <p><b>A2 Peripheral devices and media</b></p> <p><b>C2 Online systems</b></p> <p><b>E1 Online services</b></p>	How is IT used in the business environment?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Discuss the use of IT in a vocational/business environment, identifying key areas where IT may be used (eg customer service, supporting staff, completing office tasks or collaborative working).</li> <li>• <b>Independent learning activity 1:</b> Learners to conduct independent research on use of IT systems in business/organisations. See links to videos on IT in business and Supply and IT for more information in the following link <a href="http://www.youtube.com/watch?v=5Ik7rNkODTw">www.youtube.com/watch?v=5Ik7rNkODTw</a> Supply and IT <a href="http://www.youtube.com/watch?v=SXDvHgjRNDQ">www.youtube.com/watch?v=SXDvHgjRNDQ</a></li> </ul>			<p>Lit</p> <p>Social</p> <p>So8 Sp2 Sp5</p>
21/9/2020 – Lesson 2	<p><b>A2 Peripheral devices and media</b> Manual and automatic data processing.</p>	Explain the importance of data processing within IT systems?	<ul style="list-style-type: none"> <li>• <b>Tutor presentation:</b> Introduce the lesson and explain the importance of data processing within an IT system and its role in fulfilling key tasks in a range of sectors.</li> <li>• <b>Independent learning activity:</b> Learners to conduct research, into the devices and peripherals that are used to aid manual and automatic data processing (ie devices that capture, process and output data into systems). See the following link <a href="http://www.quora.com/Is-automated-data-processing-or-manual-data-entry-the-best-option-Why">www.quora.com/Is-automated-data-processing-or-manual-data-entry-the-best-option-Why</a> : 'Is automated</li> </ul>		Set learners a challenge to identify an example of emerging/novel/interesting use of data processing (eg RFID, or QR codes).	<p>Lit</p> <p>Social</p> <p>So8 C3 Sp2 Sp5</p>

			<p>data processing or manual data entry the best option?'</p> <ul style="list-style-type: none"> <li>• <b>Small group discussion:</b> In pairs or small groups, learners discuss their findings and share ideas.</li> </ul>			
28/9/2020 – Lesson 1	<p><b>A2 Peripheral devices and media</b> Manual and automatic data processing.</p> <p><b>A5 Choosing IT systems</b></p>	How do specific manual and automatic data processing devices/systems help businesses achieve their aims?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Learners to share their findings from the homework activity.</li> <li>• <b>Small group activity:</b> Sort learners into groups of three. Give each group a vocational scenario within one of the identified sectors (ie a company/individual and the aims of their vocational context). As a group, learners should identify how specific manual and automatic data processing devices/systems would aid them in achieving their aims. See video link on automated data capture in the following link <a href="http://www.youtube.com/watch?v=8ynC60PHBtc">www.youtube.com/watch?v=8ynC60PHBtc</a> for more information on automated data capture</li> <li>• <b>Class discussion:</b> Each group to present a summary of their scenario and solution to the rest of the class.</li> </ul>			<p>Lit</p> <p>Social</p> <p>So8 Sp2 Sp5</p>
28/9/2020 – Lesson 2	<p><b>A2 Peripheral devices and media</b> Accessibility devices.</p> <p><b>A4 Emerging technologies</b></p> <p><b>A5 Choosing IT systems</b></p>	What accessibility requirements are there to improve access to IT systems?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the lesson. Give learners a brief introduction to the definition and purpose of accessibility devices.</li> <li>• <b>Independent learning activity 1:</b> Learners to conduct initial research into the types of accessibility devices that improve access to IT systems. Learners should make brief notes.</li> <li>• <b>Independent learning activity 2:</b> Give learners a series of scenarios involving accessibility requirements. In each case, learners should suggest systems and devices that could be</li> </ul>		Assessment Activity (Private Study Lesson)	<p>Lit</p> <p>Social</p> <p>So8 C3 Sp2 Sp5</p>



			<p>used to improve accessibility. They should justify their suggestions. See link on some ideas around accessibility apps (in addition to devices) in the following link <a href="http://www.abilitynet.org.uk/sites/abilitynet.org.uk/files/AbilityNet%20Top%20Ten%20Accessible%20Apps.doc">www.abilitynet.org.uk/sites/abilitynet.org.uk/files/AbilityNet%20Top%20Ten%20Accessible%20Apps.doc</a></p> <ul style="list-style-type: none"> <li>• <b>Small group discussion:</b> In pairs or small groups, learners discuss their responses.</li> </ul>			
5/9/2020 – Lesson 1	<p><b>A2 Peripheral devices and media</b> Characteristics and implications of storage media used to form part of an IT system.</p> <p><b>A4 Emerging technologies</b></p> <p><b>A5 Choosing IT systems</b></p>	What is the difference between the different types of storage?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the lesson. Highlight the difference between storage and memory and the different role each plays in an IT system.</li> <li>• <b>Small group activity:</b> Learners conduct initial research into different storage media covering: internal, external, flash, magnetic and optical. See links on storage devices, storage devices and media and Box Cloud Storage Review in the following links <a href="http://www.computerhope.com/jargon/s/stordevi.htm">www.computerhope.com/jargon/s/stordevi.htm</a> Storage devices and media <a href="http://www.youtube.com/watch?v=CaLkwKSQZSY">www.youtube.com/watch?v=CaLkwKSQZSY</a> Box Cloud Storage Review <a href="http://www.youtube.com/watch?v=Aqld5Y6WCE4">www.youtube.com/watch?v=Aqld5Y6WCE4</a></li> <li>• <b>Independent activity:</b> Give learners a realistic/vocational scenario and ask them to analyse to what extent different storage media would meet requirements.</li> </ul>		Quiz to check learners' understanding of the characteristics of storage media.	<p>Lit</p> <p>Social</p> <p>So8 C3 Sp2 Sp5</p>

5/9/2020 – Lesson 2	<p><b>A3 Computer software in an IT System</b></p> <p>Types of operating system.</p> <p>The role of operating systems.</p> <p>Factors affecting the choice of operating system.</p> <p>The principles and implications of open-source and proprietary operating systems.</p>	Which Operating System is the best?	<ul style="list-style-type: none"> <li>• <b>Tutor presentation:</b> Introduce the lesson. Discuss with learners the concept of operating systems in large- and small-scale systems introducing the main roles of the operating systems (A3.2).</li> <li>• <b>Small group activity:</b> Give some examples of different types of operating systems on different devices for learners to explore. See links: 'Android vs IOS vs Windows 10 Mobile: Which OS is best?' and comparison of mobile operating systems in the following link Android v IOS v Windows <a href="http://www.trustedreviews.com/opinions/which-mobile-operating-system-is-best">www.trustedreviews.com/opinions/which-mobile-operating-system-is-best</a> Mobile operating system comparison <a href="https://en.wikipedia.org/wiki/Comparison_of_mobile_operating_systems">https://en.wikipedia.org/wiki/Comparison_of_mobile_operating_systems</a> .</li> <li>• <b>Independent learning activity:</b> Learners to conduct research, into the features and roles of different operating systems and how their implementation differs on different devices (e.g. desktop computer operating system compared with a mobile operating system)</li> <li>• <b>Small group activity:</b> In pairs, learners should explore the sources and concepts and implications of open-source operating systems.</li> </ul>		Produce an Information sheet on the different Operating Systems	Lit Social So8 C3 Sp2 Sp5
12/10/2020 – Lesson 1	<p><b>A3 Computer software in an IT System</b></p> <p>Utility software.</p> <p>Application software.</p>	Explore the sources and concepts and implications of open-source operating systems	<ul style="list-style-type: none"> <li>• <b>Tutor presentation:</b> Introduce the lesson. Discuss with learners the concept of utility software and application software and the distinction between the two.</li> <li>• <b>Independent learning activity:</b> Learners investigate the</li> </ul>	Learners to complete an exam-style question relating to utility and application software.		Lit Social So8 Sp2 Sp5

	The principles and implications of open-source and proprietary software.		<p>implementation of utility software and application software on different devices. For example, how might a mobile version of a productivity suite differ on a mobile device to a desktop PC? See the following links on Microsoft Office 365 across devices and operating systems and Open-Source vs Proprietary Software Pros and Cons MS Office 365</p> <p><a href="http://www.youtube.com/watch?v=SG6OFF4_j58">www.youtube.com/watch?v=SG6OFF4_j58</a></p> <p>Open-Source vs Proprietary Software</p> <p><a href="http://www.optimusinfo.com/downloads/white-paper/open-source-vs-proprietary-software-pros-and-cons.pdf">www.optimusinfo.com/downloads/white-paper/open-source-vs-proprietary-software-pros-and-cons.pdf</a></p> <ul style="list-style-type: none"> <li>• <b>Small group activity:</b> In pairs, learners should explore the sources and concepts and implications of open-source operating systems.</li> </ul>			
12/10/2020 – Lesson 2	<p><b>A3 Computer software in an IT System</b></p> <p>Factors affecting the choice and use of user interfaces.</p> <p>The impact and features of user interfaces in computer software.</p>	What are the features, potential uses and implications of a given interface?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Give learners opportunities to explore different devices, programs and systems that utilise different types of interface.</li> <li>• <b>Small group activity 1:</b> Split the class into at least four groups. Assign each group one of the types of interface listed in topic A3. As a group, they should prepare a short presentation highlighting the features, potential uses and implications of their assigned interface.</li> <li>• <b>Small group activity 2:</b> Each group to take turns to present their findings to the rest of the class.</li> </ul>		Assessment Activity (Private Study)	<p>Lit</p> <p>Social</p> <p>So8</p> <p>C3</p> <p>Sp2</p> <p>Sp5</p>
19/10/2020 – Lesson 1	<b>A3 Computer software in an IT System</b>	How a file format and type	<ul style="list-style-type: none"> <li>• <b>Tutor presentation:</b> Introduce the lesson. Give learners an overview of the concepts of file types and formats</li> </ul>	Questions from the revision book – pg 8 & 9		<p>Lit</p> <p>Social</p>

	<p>Features of common files and formats.</p> <p>The implications on IT systems, individuals and organisations of the use and selection of file types and formats.</p> <p><b>B3 Issues relating to the transmission of data</b></p> <p>The use and implications of codecs when using and transmitting audio and video.</p>	<p>can be impact different tasks?</p>	<p>with reference, in particular, to images, video and applications software.</p> <ul style="list-style-type: none"> <li>• <b>Paired activity:</b> Give each pair access to a range of different file formats (eg common application formats, compressed files, software specific files, videos that require codecs). Give learners a series of scenarios and get them to explore the properties of each of the files to explore how the file format and type would impact on the given scenario.</li> </ul> <p>Saving an original image in different file formats will give learners an opportunity to see what the impact of different file formats will be on the quality of an image. See link in the following link <a href="https://pixabay.com/">https://pixabay.com/</a> for access to some free high-quality images that the learners can use.</p> <ul style="list-style-type: none"> <li>• <b>Class discussion:</b> Learners discuss the outcomes of the file format task (eg how size affected their use or requirement to install software).</li> </ul>			<p>So8 Sp2 Sp5</p>
<p>19/10/2020 – Lesson 2</p>	<p><b>A4 Emerging technologies</b></p>	<p>Explain how technology and IT systems are constantly evolving and the impact this has on individuals and organisations.</p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the concept of emerging technologies. Explain how technology and IT systems are constantly evolving and the impact this has on individuals and organisations.</li> <li>• <b>Individual activity:</b> Learners should prepare a short presentation, based on individual research, about an emerging technology. The presentation should explain what the technology is, how it is being used and identify an impact it may have on any area of information technology. The technology can be for any use,</li> </ul>			<p>Lit</p> <p>Social</p> <p>So8 Sp2 Sp5</p>

			<p>and can be software or hardware based but should not be an established brand. See link on MIT Review of 10 breakthrough technologies in 2016 in the following link  <a href="http://www.technologyreview.com/lists/technologies/2016/">www.technologyreview.com/lists/technologies/2016/</a></p> <ul style="list-style-type: none"> <li>• <b>Class activity:</b> Learners should take it in turns to present their work to the rest of the class. Members of the groups should be prepared to answer questions posed by the audience.</li> </ul>			
2/11/2020 – Lesson 1	<b>A5 Choosing IT systems</b>	Factors affecting the choice of digital technology	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Through a Q&amp;A session, remind learners of different areas of the syllabus studied so far (topic A). Introduce the task that they will be focusing on in this lesson. Highlight that they should be able to apply knowledge in context and should be able to consider how/why a technology is used and how it impacts on individuals and/or organisations. Draw learners' attention to the factors affecting the choice of digital technology.</li> <li>• <b>Individual activity:</b> Give learners a vocational scenario that requires them to identify and justify how digital devices could be used to meet identified needs. The given scenario should be detailed enough for learners to consider, analyse choose and justify how different devices and systems could be used. Their response should be presented as a formal written report.</li> </ul>	Assessment question on pg 14 of the revision book	Learners to consider, analyse choose and justify how different devices and systems could be used. Their response should be presented as a formal written report.	Lit Social  So8 C3 Sp2 Sp5
2/11/2020 – Lesson 2	<b>B1 Connectivity</b> Wireless and wired methods of	Describe the process of transmitting/transferring data	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the lesson. Ask learners to name as many connection types as they can think of, grouping</li> </ul>		Assessment Activity (Private Study Lesson)	Lit Social

	connecting devices and transmitting data.	with particular reference to the different connection methods that could be used at each stage.	<p>them into wired and wireless connections.</p> <ul style="list-style-type: none"> <li>• <b>Class activity:</b> Give feedback on the list that the learners compiled. Suggest any connections that they may have missed.</li> <li>• <b>Group activity:</b> In groups, ask learners to discuss and make notes regarding what they know about each of the connection types, such as uses, benefits and limitations.</li> <li>• <b>Class discussion:</b> Discuss the learners' outcomes, correcting any misconceptions and technical inaccuracies.</li> <li>• <b>Plenary:</b> Give learners scenarios that require use of connections to transmit data within and between systems. Learners should describe the process of transmitting/transferring data with particular reference to the different connection methods that could be used at each stage.</li> </ul>			So8 C3 Sp2 Sp5
9/11/2020 – Lesson 1	<p><b>B1 Connectivity</b></p> <p>Wireless and wired methods of connecting devices and transmitting data.</p> <p>How the features of connection types can meet the needs of individuals and organisations.</p> <p>The implications of selecting and using different connection types.</p>	How you conduct a site survey to add users to a wireless network and how to do this successfully?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the lesson. Use Q&amp;A to check learners' understanding of the topics from last lesson.</li> <li>• <b>Class discussion:</b> Explore the concept of how the choice of connection type affects the performance of a larger system.</li> </ul> <p>Netgear have produced a pdf that explores how you conduct a site survey to add users to a wireless network and how to do this successfully – see link in the following link  <a href="http://www.netgear.co.uk/images/pdf/WP_WirelessSiteSurveys.pdf">www.netgear.co.uk/images/pdf/WP_WirelessSiteSurveys.pdf</a></p>		<ul style="list-style-type: none"> <li>• <b>Continued on from the lesson</b> Learners should: <ul style="list-style-type: none"> <li>○ create a diagram showing how the systems will connect</li> <li>○ annotate the diagram to explain the connections used, the data being transferred and the direction of data transfer</li> <li>○ justify their choice of connections</li> </ul> </li> </ul>	Lit Social  So8 C3 Sp2 Sp5

	The impact of connection types on the performance of an IT system.		<ul style="list-style-type: none"> <li>• <b>Individual activity:</b> Give learners a vocational scenario that would require the connection of multiple devices and/or systems to meet a range of aims. Learners should: <ul style="list-style-type: none"> <li>○ create a diagram showing how the systems will connect</li> <li>○ annotate the diagram to explain the connections used, the data being transferred and the direction of data transfer</li> <li>○ justify their choice of connections used in comparison to other possible connections.</li> </ul> </li> </ul> <p>If not completed in lesson then needs to be completed for homework</p>		used in comparison to other possible connections.	
9/11/2020 – Lesson 2	<b>B2 Networks</b> The features, use and purpose of different networks.	What are the features, uses and purpose of different networks.	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the lesson. Draw learners’ attention to the four main types of network listed in B2.</li> <li>• <b>Independent learning activity:</b> Learners to conduct research, and draw on their own experiences to produce notes on each of the four networks. They should include the components required to form the network, benefits, drawbacks etc.</li> <li>• <b>Class discussion:</b> As a class, discuss findings and share ideas.</li> </ul>	Revision Questions from the revision guide pg 16 & 17		Lit Social So8 Sp2 Sp5
16/11/2020 – Lesson 1	<b>B2 Networks</b> The features, use and purpose of different networks. The factors affecting the choice of network. How the features of a network and	What are the factors that can affect the choice of network	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the lesson. Use Q&amp;A to check learners’ understanding from the last lesson.</li> <li>• <b>Class discussion:</b> Explore the factors affecting the choice of network.</li> <li>• <b>Individual activity:</b> Give learners a vocational scenario detailing the use of different networks (the scenario</li> </ul>	Revision question from revision guide pg 18		Lit Social So8 Sp2 Sp5

	its components affect the performance of an IT system.		should contain examples of good and not so good practice). Learners should evaluate the choice of network/networks, suggesting improvements and alternatives, as appropriate.			
16/11/2020 – Lesson 2	<p><b>B3 Issues relating to the transmission of data</b></p> <p>Protocols used to govern and control data transmission for common tasks.</p>	Explain the concept of protocols (what they are used for and why).	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the lesson. Explain the concept of protocols (what they are used for and why).</li> <li>• <b>Independent learning activity:</b> Learners to conduct research on the protocols used for common IT tasks. See link on UDP and TCP: Comparison of Transport Protocols in the following link <a href="http://www.youtube.com/watch?v=Vdc8TCESIq8">www.youtube.com/watch?v=Vdc8TCESIq8</a></li> <li>• <b>Class discussion:</b> As a class, discuss findings and share ideas.</li> </ul>		Assessment Activity (Private Activity)	Lit Social  So8 C3 Sp2 Sp5
23/11/2020 – Lesson 1	<p><b>B Transmitting data</b></p> <p>The implications of selecting and using different connection types.</p> <p>The impact of connection types on the performance of an IT system.</p> <p>How the features of a network and its components affect the performance of an IT system.</p> <p>Factors affecting bandwidth and latency.</p>	How the features of a network and its components affect the performance of an IT system?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the lesson by exploring the concept of bandwidth and latency and some of the factors that may affect them.</li> <li>• <b>Small group activity:</b> Supply each group with a different scenario detailing a series of connected devices and systems. The scenario should give details of a range of connection types and the type of data to be transferred. As a group, the learners should identify areas of the system that would have greater/less bandwidth, and where latency might occur. The groups should suggest ways in which the system might be improved.</li> <li>• <b>Class discussion:</b> One person from each group to feed back the</li> </ul>	Revision Question from the revision book pg 20		Lit Social  So8 Sp2 Sp5



	The implications of bandwidth and latency on the use and performance of an IT system.		outcomes of their group task to the rest of the class.			
23/11/2020 – Lesson 2	<p><b>B3 Issues relating to the transmission of data</b></p> <p>Types of compression.</p> <p>The applications and implications of data compression.</p> <p>The use and implications of codes when using and transmitting audio and video in digital format.</p>	Explaining the concept of compression, different types of compression (including codecs), and its application and implications on individuals and organisations	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the lesson. Explain the concept of compression (what it is used for and why and how it works).</li> </ul> <p><b>Independent learning activity:</b> Based on independent research, learners to produce a technical 'help manual' explaining the concept of compression, different types of compression (including codecs), and its application and implications on individuals and organisations. See video links 'Compression Types Lossy Lossless' and 'Better Dialogue Audio: Compression and Normalisation' in the following links</p> <p>Compression types <a href="http://www.youtube.com/watch?v=q5e2dZ8ESU">www.youtube.com/watch?v=q5e2dZ8ESU</a></p> <p>Compression and Normalisation <a href="http://www.youtube.com/watch?v=9ka17soRvT0">www.youtube.com/watch?v=9ka17soRvT0</a></p>			Lit  Social  So8 Sp2 Sp5
30/11/2020 – Lesson 1	<p><b>C1 – Online systems</b></p> <p>The personal and professional uses and applications of cloud storage.</p>	Define the distinctions between personal and professional use of the technology.	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Through Q&amp;A, establish learners' baseline understanding of 'cloud storage'. It is likely that knowledge and examples will relate to personal rather than professional use.</li> </ul> <p><b>Group activity:</b> In groups, learners discuss and conduct research on the uses and implications of cloud storage. Direct learners to make distinctions between personal and professional uses of the technology.</p>			Lit  Social  So8 Sp2 Sp5

			<p>See link on the implications of cloud computing in the following link <a href="http://www.dmwgroup.com/implications-cloud-computing/">www.dmwgroup.com/implications-cloud-computing/</a></p> <ul style="list-style-type: none"> <li>• <b>Class discussion:</b> As a class, discuss findings and share ideas.</li> </ul>			
30/11/2020 – Lesson 2	<p><b>C1 Online systems</b></p> <p>The personal and professional uses and applications of cloud computing.</p> <p>The impact and implications on individuals of cloud computing and storage.</p>	<p>What is the impact and implications on individuals of cloud computing and storage?</p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Through Q&amp;A, check learners' understanding of the content from the previous lesson. Introduce the concept of cloud computing, highlighting the difference between cloud computing and cloud storage.</li> <li>• <b>Individual activity:</b> Give learners a task that requires the use of application software to meet a range of success criteria (such as creating, editing and exporting an image). Get half of the learners to perform the task using a cloud service and the other half using locally installed software.</li> <li>• <b>Paired activity:</b> Organise learners into pairs consisting of one learner that used the cloud service and one that used locally installed software. Learners should discuss the benefits and drawbacks of each of the platforms.</li> <li>• <b>Class discussion:</b> Allow groups to share their discussions with the wider group.</li> </ul>		<p>Assessment Activity (Private Study)</p>	<p>Lit</p> <p>Social</p> <p>So8</p> <p>C3</p> <p>Sp2</p> <p>Sp5</p>
7/12/2020 – Lesson 1	<p><b>C1 – Online systems</b></p> <p>The impact and implications on individuals of cloud computing and storage.</p>		<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the purpose of the lesson, ie to reinforce learning from previous lessons and to practise exam technique. Explain the requirements of the keyword selected for the extended writing task.</li> </ul>			<p>Lit</p> <p>Social</p> <p>So8</p> <p>Sp2</p> <p>Sp5</p>

	The impact and implications on organisations of cloud computing and storage.		<ul style="list-style-type: none"> <li>• <b>Individual activity:</b> In exam conditions, learners should respond to an extended writing, exam-style question on cloud computing and/or storage. Ensure that the question uses the command word 'discuss' or 'analyse'.</li> <li>• <b>Paired activity:</b> Allow learners to swap and discuss their responses and interpretation of the question.</li> <li>• <b>Individual activity:</b> Learners redraft/improve their responses based on their discussion.</li> </ul>			
7/12/2020 – Lesson 2	<p><b>C2 Online communities</b></p> <p>Ways of communicating and interacting with online communities.</p> <p>The implications for individuals of using and accessing online communities.</p>	What is the implications for individuals of using and accessing online communities?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Learners should identify and discuss types of 'online community' and the communication tools they offer. Ensure that learners are aware of, and use, specific terms and not brand names.</li> <li>• <b>Group activity:</b> In groups, learners discuss and conduct research on the uses and implications of online communities for individuals</li> <li>• <b>Class discussion:</b> As a class, discuss findings and share ideas.</li> <li>• <b>Individual activity:</b> Homework task – learners to prepare questions to ask the guest speaker.</li> </ul>			<p>Lit</p> <p>Social</p> <p>So8</p> <p>Sp2</p> <p>Sp5</p>
14/12/2020 – Lesson 1	<p><b>C2 Online communities</b></p> <p>Ways of communicating and interacting with online communities.</p> <p>The implications for organisations of using and</p>	What are the implications for organisations of using and accessing online communities?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce guest speaker and highlight to learners that in this lesson they will look at online communities used by organisations.</li> <li>• <b>Guest speaker:</b> A manager or technical support specialist from a local employer should visit the lesson to give a talk on the use of online communities by their organisation. Learners should make notes throughout.</li> </ul>	Revision questions from the revision book pg 30 & 31		<p>Lit</p> <p>Social</p> <p>So8</p> <p>Sp2</p> <p>Sp5</p>

	accessing online communities.		<ul style="list-style-type: none"> <li>• <b>Class discussion:</b> Learners ask speaker prepared questions.</li> </ul>			
14/12/2020 – Lesson 2	<p><b>C1 – Online systems</b></p> <p><b>C2 – Online communities</b></p>	Analyse the ways in which online systems and online communities could be used to meet the needs of a given organisation and the implications of these technologies.	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Through use of Q&amp;A, check learners’ understanding of topic C. Introduce the task that they will be focusing on this lesson.</li> <li>• <b>Individual activity:</b> Supply learners with a vocational scenario that requires them to analyse the ways in which online systems and online communities could be used to meet the needs of a given organisation and the implications of these technologies.</li> </ul>		Assessment Activity (Private Study)	Lit Social So8 C3 Sp2 Sp5
4/1/2021 – Lesson 1	<p><b>D1 Threats to data, information and systems</b></p> <p>The characteristics of threats to data.</p> <p>The impact of threats to data, information and systems on individuals.</p> <p><b>B3 Issues relating to transmission of data</b></p> <p>Security issues and considerations when transmitting data over different connection types.</p>	What are the different threats to data and the impact of this on individuals?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> As a class, learners thought shower the potential threats to data. Use Q&amp;A to establish the level of learners’ knowledge of how, where and why these threats occur.</li> <li>• <b>Independent learning activity:</b> Learners conduct research on the characteristics of different threats to data and the impact of this on individuals.</li> <li>• <b>Class discussion:</b> As a class, discuss findings and share ideas.</li> </ul>	Revision questions from the revision book pg 36		Lit Social So8 Sp2 Sp5
4/1/2021 – Lesson 2	<b>D1 Threats to data,</b>	What are the different threats to data and the impact	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Use Q&amp;A to remind learners of topics covered last lesson.</li> </ul>			Lit Social

	<p><b>information and systems</b></p> <p>The characteristics of threats to data.</p> <p>The impact of threats to data, information and systems on organisations.</p> <p><b>B3 Issues relating to transmission of data</b></p> <p>Security issues and considerations when transmitting data over different connection types.</p>	<p>of this on organisation?</p>	<ul style="list-style-type: none"> <li>• <b>Independent learning activity:</b> Learners conduct research on the impact of threats to data on organisations. See video link 'Cyber Security Treats: See them before they happen' in the following link Cyber Security <a href="http://www.youtube.com/watch?v=S2xMS4z7ngc">www.youtube.com/watch?v=S2xMS4z7ngc</a></li> <li>• <b>Class discussion:</b> As a class, discuss findings and share ideas.</li> </ul>			<p>So8 Sp2 Sp5</p>
<p>11/1/2021 – Lesson 1</p>	<p><b>D1 Threats to data, information and systems</b></p> <p><b>D2 Protecting data</b></p> <p>Processes and implications of techniques for protecting data and systems.</p> <p>The features, characteristics and implications of using antivirus software to protect systems.</p>	<p>Highlight the features and implications of their assigned technique.</p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Use Q&amp;A to test learners' understanding of threats to data.</li> <li>• <b>Individual activity 1:</b> Set learners a challenge to each find one feature, one characteristic and one implication of using antivirus software and/or firewalls.</li> <li>• <b>Class discussion:</b> Discuss the learners' findings and facilitate discussion to ensure that learners are aware of a range of features, characteristics and implications.</li> <li>• <b>Small group activity 1:</b> Organise the class into groups. Assign each group one of the techniques listed. As a group, they should prepare a short presentation highlighting the features</li> </ul>			<p>Lit</p> <p>Social</p> <p>So8 Sp2 Sp5</p>

	<p>The features, characteristics and implications of using firewalls to protect systems.</p> <p><b>E2 Impact on organisations</b></p> <p>The features and implications of IT systems used by organisations for security.</p>		<p>and implications of their assigned technique.</p> <ul style="list-style-type: none"> <li>• <b>Small group activity 2:</b> Each group should take turns to present their findings to the rest of the class.</li> </ul>			
11/1/2021 – Lesson 2	<p><b>D2 Protecting data</b></p> <p>The features, applications and implications of encryption methods.</p>	How to decode scrambled messages	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Supply learners with a message scrambled using a simple substitution cipher. Ask learners to decode the message using the key given to them. Use this activity as an introduction to the concept of encryption.</li> <li>• <b>Independent learning activity:</b> Learners to conduct research on data encryption that can be used to protect stored and transmitted data. See video links Encryption Part 1: Introduction to Encryption 1, 2 and 3 Introduction to Encryption 1 <a href="http://www.youtube.com/watch?v=vCDe14NxSY0">www.youtube.com/watch?v=vCDe14NxSY0</a> Introduction to Encryption 2 <a href="http://www.youtube.com/watch?v=KEWGoXE6zMo">www.youtube.com/watch?v=KEWGoXE6zMo</a> Introduction to Encryption 3 <a href="http://www.youtube.com/watch?v=wZ9SnV6ySeM">www.youtube.com/watch?v=wZ9SnV6ySeM</a></li> <li>• <b>Class discussion:</b> As a class, discuss findings and share ideas.</li> </ul>		Assessment Activity (Private Study Lesson)	<p>Lit</p> <p>Social</p> <p>So8</p> <p>C3</p> <p>Sp2</p> <p>Sp5</p>

18/1/2021 – Lesson 1	<b>D1 Threats to data, information and systems</b> <b>D2 Protecting data</b>	What are the codes of practice to protect sensitive data?	<ul style="list-style-type: none"> <li>• <b>Tutor presentation:</b> Give an introduction and overview of the legislation and codes of practice for the protection of data.</li> <li>• <b>Individual activity:</b> Learners make notes on legislation and codes of practice. Learners also prepare and refine questions for the guest speaker.</li> <li>• <b>Guest speaker:</b> A manager or technical support specialist from a local employer should visit the lesson to give a talk on the protection of data and the implications of threats.</li> </ul>	Revision questions from the revision book pg 37		Lit Social So8 Sp2 Sp5
18/1/2021 – Lesson 2	<b>D1 Threats to data, information and systems</b> <b>D2 Protecting data</b>	What are the codes of practice to protect sensitive data?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Hold a brief Q&amp;A session on protecting data and systems. Remind learners of the meaning of different command words.</li> <li>• <b>Individual activity:</b> Give learners a set of exam-style questions set in a vocational scenario that focuses on topic D.</li> </ul>	Exam style questions – Long Answer question		Lit Social So8 C3 Sp2 Sp5
25/1/2021 – Lesson 1	<b>E1 Online services</b> The features and implications of using online services.	The uses, impact and implications for individuals and organisations of: <ul style="list-style-type: none"> <li>• transactional data</li> <li>• targeted marketing</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the activity and give an overview of the range of areas learners should consider when investigating online services.</li> <li>• <b>Individual activity:</b> Based on research, learners should present a detailed, formal written report on how online services in the listed areas meet the needs of individuals and organisations and the associated implications.</li> </ul> <p>This could include retail, financial services (financial advisers), education, entertainment and leisure and booking systems (eg health) – see the following links:</p>			Lit Social So8 Sp2 Sp5

			<p>Retail  <a href="http://www.nibusinessinfo.co.uk/content/advantages-and-disadvantages-online-retail">www.nibusinessinfo.co.uk/content/advantages-and-disadvantages-online-retail</a></p> <p>Financial services  <a href="http://www.bankhall.co.uk/">www.bankhall.co.uk/</a></p> <p>Education  <a href="http://www.educate.co.uk/">www.educate.co.uk/</a></p> <p>Entertainment  <a href="http://www.thecloud.net/wifi/case-studies/entertainment-and-leisure/">www.thecloud.net/wifi/case-studies/entertainment-and-leisure/</a></p> <p>Booking systems  <a href="https://patient.emisaccess.co.uk/account/login">https://patient.emisaccess.co.uk/account/login</a></p>			
25/1/2021 – Lesson 2	<p><b>E2 Impact on organisations</b></p> <p>The features and implications of IT systems used by organisations for:</p> <ul style="list-style-type: none"> <li>• stock control.</li> </ul>	<p>Understanding features and implications of stock control systems including uses and system components</p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce lesson and give a brief overview of stock control systems.</li> <li>• <b>Independent learning activity:</b> Learners conduct research on the features and implications of stock control systems including uses and system components.</li> <li>• <b>Class discussion:</b> As a class, discuss findings and share ideas.</li> </ul>		<p>Assessment Activity (Private Study Lesson)</p>	<p>Lit Social  So8 C3 Sp2 Sp5</p>
1/2/2021 – Lesson 1	<p><b>E2 Impact on organisations</b></p> <p>The features and implications of IT systems used by organisations for:</p> <ul style="list-style-type: none"> <li>• data logging</li> <li>• data analysis.</li> </ul>	<p>Understanding the features and implications of data logging and analysis systems, including uses and system components.</p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce lesson and give a brief overview of data logging and data analysis systems.</li> <li>• <b>Independent learning activity:</b> Learners conduct research into the features and implications of data logging and analysis systems, including uses and system components.</li> <li>• <b>Class discussion:</b> As a class, discuss findings and share ideas.</li> </ul>			<p>Lit Social  So8 Sp2 Sp5</p>



1/2/2021 – Lesson 2	<p><b>E2 Impact on organisations</b></p> <p>The features and implications of IT systems used by organisations for:</p> <ul style="list-style-type: none"> <li>• general office tasks</li> <li>• creative tasks.</li> </ul>	<p>What are the features and implications of data logging and analysis systems – and how can they impact general office duties and creative task?</p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce lesson and give a brief overview of IT systems for office and creative tasks.</li> <li>• <b>Independent learning activity:</b> Learners to conduct research on the features and implications to organisations of systems used for office and creative tasks.</li> <li>• <b>Class discussion:</b> As a class, discuss findings and share ideas.</li> </ul>	Case study assessment question – to assess long answer questions		<p>Lit</p> <p>Social</p> <p>So8</p> <p>Sp2</p> <p>Sp5</p>
8/2/2021 – Lesson 1	<p><b>E2 Impact on organisations</b></p> <p>The features and implications of IT systems used by organisations for:</p> <ul style="list-style-type: none"> <li>• advertising.</li> </ul>	<p>What are the features and implications of data logging and analysis systems for advertising?</p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce lesson and give a brief overview of IT systems used for advertising.</li> <li>• <b>Independent learning activity:</b> Learners to conduct research on the features and implications for organisations of using IT systems for advertising. See link on advertising agency software products in the following links <a href="http://www.capterra.com/advertising-agency-software/">www.capterra.com/advertising-agency-software/</a></li> <li>• <b>Class discussion:</b> As a class, discuss findings and share ideas.</li> </ul>			<p>Lit</p> <p>Social</p> <p>So8</p> <p>Sp2</p> <p>Sp5</p>
8/2/2021 – Lesson 2	<p><b>E2 Impact on organisations</b></p> <p>The features and implications of IT systems used by organisations for:</p> <ul style="list-style-type: none"> <li>• manufacturing.</li> </ul>	<p>What are the features and implications of data logging and analysis systems for manufacturing?</p>	<ul style="list-style-type: none"> <li>• <b>Tutor presentation:</b> Give an overview of systems used in manufacturing and facilitate discussion regarding the impact of these systems.</li> <li>• <b>Independent activity:</b> Prepare questions and notes on areas of further interest/study for planned visit.</li> </ul>		Assessment Activity (Private Study Lesson)	<p>Lit</p> <p>Social</p> <p>So8</p> <p>C3</p> <p>Sp2</p> <p>Sp5</p>
22/2/2021 – Lesson 1	<p><b>E2 Impact on organisations</b></p> <p>The features and implications of IT</p>	<p>What are the impact and implications for organisations of IT systems?</p>	<ul style="list-style-type: none"> <li>• <b>Knowledge quiz:</b> Hold an informal quiz on the features of IT systems used by organisations.</li> </ul>	Supply learners with a set of short exam-style questions set in a vocational scenario		<p>Lit</p> <p>Social</p> <p>So8</p> <p>Sp2</p>

	<p>systems used by organisations.</p> <p>The impact and implications for organisations of IT systems.</p>		<ul style="list-style-type: none"> <li>• <b>Tutor presentation:</b> Remind learners of the requirements of exam command words.</li> <li>• <b>Individual activity :</b> Supply learners with vocational scenarios that require them to analyse the ways in which IT systems could be used to meet the needs of a given organisation and the implications of these systems.</li> </ul>	that focuses on topic E2.		Sp5
22/2/2021 – Lesson 2	<p><b>E3 Using and manipulating data</b></p> <p>Sources of data.</p> <p>Judging and ensuring reliability of data.</p>	How to ensure the reliability of data?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the lesson by defining primary and secondary sources of data.</li> <li>• <b>Small group activity:</b> In pairs or small groups, learners thought shower sources of secondary and primary data. See links on understanding primary and secondary data, data collection: building a valid and reliable data collection plan and validity and reliability in surveys in the following links:            Primary and Secondary Sources  <a href="http://www.youtube.com/watch?v=pmno-Yfctd8">www.youtube.com/watch?v=pmno-Yfctd8</a>            Data collection  <a href="http://www.ascd.org/publications/books/10047/chapters/Data-Collection@-Building-a-Valid-and-Reliable-Data-Collection-Plan.aspx">www.ascd.org/publications/books/10047/chapters/Data-Collection@-Building-a-Valid-and-Reliable-Data-Collection-Plan.aspx</a>            Validity and reliability in surveys  <a href="http://www.relevantinsights.com/validity-and-reliability#sthash.DDIIn4X4.dpbs">www.relevantinsights.com/validity-and-reliability#sthash.DDIIn4X4.dpbs</a> </li> <li>• <b>Class discussion:</b> Learners share and discuss their ideas.</li> <li>• <b>Small group activity:</b> Learners research and make notes on ways of judging and ensuring the reliability of</li> </ul>	Answer revision question on page 32 of the revision book	Using the notes gathered in the class activity – Learners are to use this information to create an information sheet.	Lit Num Social So8 C3 Sp2 Sp5

			data from each of the identified sources.			
1/3/2021 – Lesson 1	<p><b>E3 Using and manipulating data</b></p> <p>The characteristics and implications of methods of collecting data.</p>	What are the implications on different methods of collecting data?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce lesson and give a brief overview of methods of collecting data, as listed in the specification.</li> <li>• <b>Independent learning activity:</b> Learners conduct research on the features and implications of each collection method. See video link on primary and secondary data in the following link: <a href="http://www.youtube.com/watch?v=59Ik5kGhGII">www.youtube.com/watch?v=59Ik5kGhGII</a></li> </ul>	Quiz on the features, benefits and drawbacks of different collection methods		<p>Lit</p> <p>Num</p> <p>Social</p> <p>So8</p> <p>Sp2</p> <p>Sp5</p>
1/3/2021 – Lesson 2	<p><b>E3 Using and manipulating data</b></p> <p>Reasons for ensuring data accuracy.</p> <p>Methods of ensuring data accuracy.</p>	Why is it important to use data validation?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Start with a practical activity. Give learners a spreadsheet or simple flat file database containing a series of different fields. Ensure that some fields have validation and others do not. Some validation should have appropriate error messages. Learners should enter data from the test plan or list, and record what happens. See link with tips for avoiding data entry errors in Excel <a href="http://www.techrepublic.com/blog/five-apps/five-tips-for-avoiding-data-entry-errors-in-excel/">www.techrepublic.com/blog/five-apps/five-tips-for-avoiding-data-entry-errors-in-excel/</a></li> <li>• <b>Class discussion:</b> Discuss what happened when the data was entered. Explore why only some fields behaved as expected. Discuss the implications of using/not using data validation.</li> <li>• <b>Small group task:</b> In pairs or small groups, learners analyse a series of common vocational scenarios to explore how data validation could be used and the relevant implications.</li> </ul>		<p>Assessment Activity (Private Study)</p> <p>Learners to create a PowerPoint on the different methods of data validation and why it is important to use it</p>	<p>Lit</p> <p>Num</p> <p>Social</p> <p>So8</p> <p>C3</p> <p>Sp2</p> <p>Sp5</p>

			<ul style="list-style-type: none"> <li>• <b>Tutor presentation:</b> Introduce and explain the concept of data verification.</li> </ul>			
8/3/2021 – Lesson 1	<p><b>E3 Using and manipulating data</b></p> <p>Methods of extracting and sorting data.</p> <p>Numerical and data modelling.</p> <p>Presenting data and results.</p>	What are the different ways to extract and use data by using Excel?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the concept of using spreadsheets as a numerical data modelling tool.</li> <li>• <b>Individual learning activities:</b> Learners should complete a series of practical tasks using a spreadsheet to: <ul style="list-style-type: none"> <li>○ sort and extract data</li> <li>○ model 'what if' scenarios</li> <li>○ present data and results.</li> </ul> </li> <li>• <b>Class discussions:</b> Use class and small group discussion to explore how these tools can be used by individuals and organisations and the implications of their use.</li> </ul>			<p>Lit</p> <p>Num</p> <p>Social</p> <p>So8</p> <p>Sp2</p> <p>Sp5</p>
8/3/2021 – Lesson 2	<p><b>E3 Using and manipulating data</b></p> <p>Methods of extracting and sorting data.</p> <p>Numerical and data modelling.</p> <p>Presenting data and results.</p>	What are the different ways to extract and use data by using Database?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the concept of using databases as a numerical data modelling tool.</li> <li>• <b>Individual learning activities:</b> Learners complete a series of practical tasks using a database to: <ul style="list-style-type: none"> <li>○ sort and extract data</li> <li>○ model 'what if' scenarios</li> <li>○ present data and results.</li> </ul> </li> <li>• <b>Class discussions:</b> Use class and small group discussion to explore how these tools can be used by individuals and organisations and the implications of their use.</li> </ul>			<p>Lit</p> <p>Social</p> <p>So8</p> <p>Sp2</p> <p>Sp5</p>
15/3/2021 – Lesson 1	<p><b>E3 Using and manipulating data</b></p> <p>The characteristics of user interfaces</p>	What are the benefits of different User Interfaces – how and why	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Supply learners with examples of user interfaces (UIs) used to capture data (database forms, questionnaires, surveys, etc). Learners should identify uses of the</li> </ul>	Creation of different User Interfaces – must be beneficial for the user.		<p>Lit</p> <p>Social</p> <p>So8</p>

	for data collection and processing.	are they beneficial for a company?	<p>characteristics listed in the specification.</p> <ul style="list-style-type: none"> <li>• <b>Individual learning activity 1:</b> Learners should carry out independent research into accessibility features and their application in UIs for data collection systems.</li> <li>• <b>Individual learning activity 2:</b> Learners design and create UIs for data capture systems using a range of different tools (eg database and spreadsheet forms and online survey tools).</li> <li>• <b>Class discussion(s):</b> Use class and small group discussion to explore how these tools can be used by individuals and organisations and the implications of their use.</li> </ul>	Students need to create a user interface using Microsoft Excel and Microsoft Access		Sp2 Sp5
15/3/2021 – Lesson 2	<b>E3 Using and manipulating data</b>	To be able answer an exam question based on the topics in E3	<ul style="list-style-type: none"> <li>• <b>Knowledge quiz:</b> Hold an informal quiz on the key points covered in previous lessons</li> <li>• <b>Tutor presentation:</b> Remind learners of the requirements of exam command words.</li> <li>• <b>Individual activity:</b> Give learners vocational scenarios that require them to analyse how data manipulation and capture tools could be used to meet the needs of a given organisation or individual and the implications of these systems.</li> </ul>	Give learners a set of short exam-style questions that are set in a vocational scenario that focuses on topic E3.	Assessment Activity (Private Study Lesson)	Lit Social  So8 C3 Sp2 Sp5
22/3/2021 – Lesson 1	<b>F1 Moral and ethical issues</b> The moral and ethical factors of the use of information technology.	What are moral and ethical factors and how to the relate to the use of IT?	<ul style="list-style-type: none"> <li>• <b>Small group activity:</b> Learners thought shower the factors to consider relating to privacy for individuals and organisations.</li> <li>• <b>Class discussion:</b> Clarify relevant areas relating to privacy.</li> </ul>	Revision guide page 36 - question		Lit Social  So8 C3 Sp2

	Privacy. Freedom of speech and censorship.		<ul style="list-style-type: none"> <li>• <b>Individual activity:</b> Learners should produce a written response explaining the implications of privacy for individual and organisational use of IT systems.</li> <li>• <b>Class discussion:</b> Explore the issues of freedom of speech and censorship.</li> </ul>			Sp5
22/3/2021 – Lesson 2	<b>F1 Moral and ethical issues</b> The moral and ethical factors of the use of information technology. Environmental.	What are moral and ethical factors and how to the relate to the use of IT with regards to the environment?	<ul style="list-style-type: none"> <li>• <b>Small group activity:</b> Learners thought shower the environmental factors to consider relating to use of IT systems.</li> <li>• <b>Individual activity 1:</b> Learners should conduct individual research into the environmental factors related to the use of IT systems (eg effects or ways of reducing the impact). See link: Information Systems and the Environment: Overview and Perspectives in the following link <a href="http://www.nap.edu/read/6322/chapter/2">www.nap.edu/read/6322/chapter/2</a></li> </ul>	Supply learners with a set of short exam-style questions set in a vocational scenario that focuses on environmental issues.		Lit Social  So8 Sp2 Sp5
12/4/2021 – Lesson 1	<b>F1 Moral and ethical issues</b> The moral and ethical factors of the use of information technology. Unequal access to information technology.	What does the term unequal access to IT mean and how does it impact society?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the concept of unequal access. Using Q&amp;A and class discussion, explore some of the causes of unequal access.</li> <li>• <b>Small group activity:</b> In pairs or small groups, learners should discuss and research the impacts (locally and globally) of unequal access to IT systems. See link on unequal access in the following link <a href="https://09obioraha.wordpress.com/tag/unequal-access/">https://09obioraha.wordpress.com/tag/unequal-access/</a></li> <li>• <b>Class discussion:</b> As a class, discuss findings and share ideas.</li> </ul>			Lit Social  So8 C3 Sp2 Sp5
12/4/2021 – Lesson 2	<b>F1 Moral and ethical issues</b> The moral and ethical factors of the use of	What does 'netiquette' mean and does it affect society – what are the	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Continue the concept of unequal access. Use Q&amp;A and class discussion to explore ideas and experiences.</li> </ul>		Assessment Activity (Private Study Lesson)	Lit Social  So8

	<p>information technology. Online behaviour and net etiquette.</p>	<p>implications of not adhering to it?</p>	<p><b>Small group activity:</b> In pairs or small groups, learners should discuss and make notes on the implications (for individuals and organisations) of issues relating to online behaviour. See links on 'Bad behaviour online: Bullying, trolling and free speech' and 'Netiquette: Rules of behaviour on the internet' in the following links: Bad behaviour online <a href="http://www.youtube.com/watch?v=RVSAFhTjAdc">www.youtube.com/watch?v=RVSAFhTjAdc</a> Netiquette <a href="http://www.education.com/reference/article/netiquette-rules-behavior-internet/">www.education.com/reference/article/netiquette-rules-behavior-internet/</a></p> <ul style="list-style-type: none"> <li>• <b>Class discussion:</b> As a class, discuss findings and share ideas.</li> </ul>			<p>C3 Sp2 Sp5</p>
<p>19/4/2021 – Lesson 1</p>	<p><b>F1 Moral and ethical issues</b> The moral and ethical factors of the use of information technology. Globalisation.</p>	<p>What does the term 'globalisation' mean?</p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the concept of globalisation. Using Q&amp;A and class discussion, explore ideas and experiences.</li> <li>• <b>Individual learning activity:</b> Learners should investigate the implications (for individuals and organisations) of issues relating to globalisation. See video link: How globalisation and IT have reshaped the world in the following link <a href="http://www.youtube.com/watch?v=PPjdQeRvGMw">www.youtube.com/watch?v=PPjdQeRvGMw</a></li> <li>• <b>Plenary:</b> Supply learners with a series of short exam-style questions relating to globalisation.</li> </ul>	<p>Give learners with a series of short exam-style questions relating to globalisation.</p>		<p>Lit Social So8 Sp2 Sp5</p>
<p>19/4/2021 – Lesson 2</p>	<p><b>F1 Moral and ethical issues</b> The moral and ethical factors of the use of</p>	<p>What does the term 'Acceptable Use' mean – how does this impact on you</p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Supply learners with examples of acceptable use policies from a range of organisations. In small groups, learners should explore commonalities between the examples.</li> </ul>	<p>Exam questions to be set covering topics of F1</p>		<p>Lit Social So8 Sp2</p>

	information technology. Acceptable use.	as a student and society in general?	<ul style="list-style-type: none"> <li>• <b>Group activity:</b> In groups, learners should explore how and why acceptable use policies are used and the implications for individuals and organisations of using them (or not). See the link to a sample acceptable use policy in the following link <a href="http://www.getsafeonline.org/themes/site/themes/getsafeonline/download_center/Sample_Acceptable_Usage_Policy.pdf">www.getsafeonline.org/themes/site/themes/getsafeonline/download_center/Sample_Acceptable_Usage_Policy.pdf</a></li> <li>• <b>Class discussion:</b> As a class, discuss findings and share ideas.</li> </ul>			Sp5
26/4/2021 – Lesson 1	<p><b>F2 Legal issues</b></p> <p>The role of current legislation in protecting users and their data from attack and misuse – Computer Misuse Act 1990.</p> <p>The role of current legislation in protecting users and their data from attack and misuse – Police and Justice Act 2015 (computer misuse).</p>	<p>What is the Computer Misuse Act? How can this impact on companies and society?</p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the lesson, by giving an overview of the Computer Misuse Act.</li> <li>• <b>Individual learning activity:</b> Learners should investigate the areas covered by the Computer Misuse Act and the potential sanctions for breaching the terms of the act. They should produce a written summary of their findings. See link to Computer Misuse Act 1990 in the following link <a href="http://www.legislation.gov.uk/ukpga/1990/18/contents">www.legislation.gov.uk/ukpga/1990/18/contents</a></li> <li>• <b>Class discussion:</b> As a class discuss, findings and share ideas.</li> </ul>			<p>Lit</p> <p>Social</p> <p>So8</p> <p>Sp2</p> <p>Sp5</p>
26/4/2021 – Lesson 2	<p><b>F2 Legal issues</b></p> <p>The role of current legislation in protecting users and their data from attack and misuse – Copyright designs</p>	<p>What is the Copyright, Designs and Patents Act 1988?</p> <p>What are the implications on</p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the lesson by giving a brief overview of the Copyright Design and Patents Act 1988.</li> <li>• <b>Group activity:</b> In groups, learners should explore the details of the act and the implications, for individuals and organisations. Each group should support their notes with at least one</li> </ul>	Question on Revision guide page 38	Assessment Activity (Private Study Lesson)	<p>Lit</p> <p>Social</p> <p>So8</p> <p>C3</p> <p>Sp2</p> <p>Sp5</p>



	<p>and patents act 1988.</p> <p>The role of current legislation in protecting users and their data from attack and misuse – The Copyright (computer programs) regulations.</p>	<p>companies and individuals?</p>	<p>real life example of the act being breached by an IT system user. See link to Computer Misuse Act 1990 legal cases in the following link <a href="http://www.computerevidence.co.uk/Cases/CMA.htm">www.computerevidence.co.uk/Cases/CMA.htm</a></p> <ul style="list-style-type: none"> <li>• <b>Class discussion:</b> As a class, summarise the key points of the act and share examples.</li> </ul>			
<p>3/5/2021 – Lesson 1</p>	<p><b>F2 Legal issues</b></p> <p>The role of current legislation in protecting users and their data from attack and misuse – The health and safety (display screen equipment) regulations 1992.</p>	<p>How does the DSE regulation impact companies and individuals? What are the key points of the regulation?</p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the lesson by giving an The Health and Safety at Work Act 1974 with regards to the Display Screen Equipment Regulation 1992</li> <li>• Provide learners with a diagram of the regulations set out by the Act</li> <li>• <b>Individual learning activity:</b> Learners should investigate and produce a written summary of the areas covered by the health and safety (display screen equipment) regulations and the implications for individuals and organisations of having to follow them (eg what equipment is needed etc). See the link to guidance and regulations for working with display screen equipment in the following link <a href="http://www.hse.gov.uk/msd/dse/guidance.htm">www.hse.gov.uk/msd/dse/guidance.htm</a></li> <li>• <b>Class discussion:</b> As a class, discuss findings and share ideas.</li> </ul>		<p>Provide learners with some scenario questions to test their knowledge of the Regulations.</p> <p>Complete mini quiz on Doddle: Health and Safety quiz Spot the Hazards quiz</p>	<p>Lit</p> <p>Social</p> <p>So8 C3 Sp2 Sp5</p>
<p>3/5/2021 – Lesson 2</p>	<p><b>F2 Legal issues</b></p> <p>The role of current legislation in protecting users</p>	<p>What is the Data Protection Act 1998?</p>	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the lesson by giving a brief overview of the Data Protection Act.</li> </ul>		<p>Doddle quiz – Data Protection Legislation</p>	<p>Lit</p> <p>Social</p> <p>So8</p>

	and their data from attack and misuse – The Data Protection Act.	How does this affect the individual?  How does this impact organisations?	<p><b>Group activity:</b> In groups, learners should investigate and summarise the main 'eight principles' of the act and how these would impact on an organisation. Each group should support their notes with at least one real life example of the act being breached by an organisation detailing what the organisation did, the sanctions that were applied and what the company should do in future. See link to the Data Protection act in the following link <a href="http://www.gov.uk/data-protection/the-data-protection-act">www.gov.uk/data-protection/the-data-protection-act</a></p> <ul style="list-style-type: none"> <li>• <b>Class discussion:</b> As a class, summarise the key points of the act and share examples.</li> </ul>			Sp2 Sp5
10/5/2021 – Lesson 1	<b>F2 Legal issues</b> Guidelines and current legislation designed to ensure the accessibility of IT systems.	What is the Disability Discrimination Acts 1995 and 2005? How does this affect the individual and what impact does this have on organisations?	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the lesson discussing the idea of, and the need for, accessibility features in IT systems.</li> </ul> <p><b>Individual learning activity:</b> Learners investigate and summarise the key points of each of the guidelines and legislation listed in the specification. See link on Disability Discrimination Act (DDA) and web accessibility in the following link <a href="http://www.webcredible.com/blog/disability-discrimination-act-dda-web-accessibility/">www.webcredible.com/blog/disability-discrimination-act-dda-web-accessibility/</a></p>	Scenario based exam questions to test the learners understanding of the legal issues covered	To produce an information sheet outlining the Disability Discrimination Acts 1995 & 2005, and The Equality Act 2010	Lit Social So8 Sp2 Sp5

10/5/2021 – Lesson 2	<p><b>F1 Moral and ethical issues</b></p> <p><b>F2 Legal issues</b></p> <p>Guidelines and current legislation designed to ensure the accessibility of IT systems.</p>		<ul style="list-style-type: none"> <li>• <b>Knowledge quiz:</b> Hold an informal quiz on the key points covered – topic F.</li> <li>• <b>Tutor presentation:</b> Remind learners of requirements of exam command words.</li> <li>• <b>Individual activity 1:</b> Supply learners with a set of short exam-style questions set in a vocational scenario that focus on topics F1 and F2.</li> </ul> <p><b>Individual activity 2:</b> Supply learners with vocational scenarios that require them to analyse the relevant legal, moral and ethical issues.</p>		Assessment Activity (Private Study Lesson)	Lit Social  So8 Sp2 Sp5
17/5/2021 – Lesson 1			<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the purpose of the lessons: to be able to plan IT systems to meet specific needs.</li> <li>• <b>Individual activity 1:</b> Learners respond to a series of vocational scenarios by planning a system to meet identified needs. System to be presented as an annotated system diagram.</li> <li>• <b>Individual activity 2:</b> Learners produce a written justification of their proposed system.</li> <li>• <b>Group activity:</b> Learners discuss their solutions, share ideas and improve the appropriateness of their system.</li> </ul>			Lit Social  So8  Sp2 Sp5
17/5/2021 – Lesson 2			<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> Introduce the purpose of the lessons: to look at the SAMs.</li> <li>• <b>Tutor presentation:</b> Explain the structure of the paper. Reiterate the meaning of different command words.</li> </ul>			Lit Social  So8 Sp2 Sp5

			<b>Individual tasks:</b> Learners should work through the paper in exam conditions.			
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