



Unit title	Information Technology Systems
Guided learning hours	120
Number of lessons	116
Duration of lessons	1 hour (unless otherwise stated)
Links to other units	
<ul style="list-style-type: none"> • <i>Unit 2: Creating Systems to Manage Information</i> • <i>Unit 3: Using Social Media in Business</i> • <i>Unit 4: Programming</i> 	

Key to lesson types			
AW	Assignment writing	RS	Revision session
GS	Guest speaker	V	Visit
IS	Independent study	WE	Work experience

Lesson	Topic	Lesson type	Suggested activities	Classroom resources
Topic A: Digital devices in IT systems				
1	A1 Digital devices, their functions and use A2 Peripheral devices and media	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the unit explaining that the content will be assessed by a traditional examination and that they will need to be able to apply all their knowledge in context. The link to the presentation in the resources column gives some useful detail that the tutor could use as part of the introduction to the session. • Small group activity: Learners thought shower IT systems that they have experience of/exposure to. • Class discussion: 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. <p>See links in the resources column for information on input and output</p>	<ul style="list-style-type: none"> • Flipchart or similar for learners to record discussions and ideas. • Presentation: www.cs.ucr.edu/~gusta/vistech/VT_2e_ch06_ppt.pdf • Input devices: www.computerhope.com/jargon/i/inputdev.htm



			<p>devices:</p> <ul style="list-style-type: none"> • Small group activity: Learners to expand their thoughts and ideas on the systems that they use. • Knowledge quiz: Hold an informal quiz about common devices, hardware and software to establish learners understanding of technical vocabulary. 	<ul style="list-style-type: none"> • Output devices: www.computerhope.com/jargon/o/outputde.htm
2 (2 hour lesson)	<p>A1 Digital devices, their functions and use Function and use of digital devices – education and training.</p> <p>A2 Peripheral devices and media</p> <p>C1 Online systems</p>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson and use Q&A sessions to establish learner understanding of input-process-output and common components of an IT system that provides these functions. • Independent learning activity: 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 linked in the resources column. • Small group discussion: Learners to discuss their findings and share ideas in pairs or small groups. 	<ul style="list-style-type: none"> • Computers with internet access for research. • Video links: Education www.youtube.com/watch?v=mzi2RIt8_nk and www.youtube.com/watch?v=2N1I6sOhDiw
3	<p>A1 Digital devices, their functions and use Function and use of digital devices – Personal/social</p> <p>A2 Peripheral devices and media</p>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson. Learners to answer a short exam-style question relating to the topic covered in the last lesson. • Independent learning activity: 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 lesson 1 and should consider how the identified systems meet particular needs. • Class discussion: As a class, discuss findings and share ideas. • Independent learning: 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. 	<ul style="list-style-type: none"> • Exam-style question (education and training). • Computers with internet access for research.



	<p>C1 Online systems C2 Online communities</p>			
4-5	<p>A1 Digital devices, their functions and use Function and use of digital devices – retail.</p> <p>A2 Peripheral devices and media</p> <p>E1 Online services</p>	IS GS	<ul style="list-style-type: none"> • Lead-in: Discuss the use of IT in retail identifying key areas where IT may be used (eg customer service, supporting staff or logistics). • Independent learning activity 1: 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 resources column. • Independent learning activity 2: Learners to prepare questions and areas of further clarification required ahead of guest speaker/visit. • Guest speaker: A manager or technical support specialist from the retail sector should visit to give a talk on the use of IT systems (this could be substituted/combined with a visit to a large, local retail outlet to examine their use of IT systems). Learners to make notes of their findings and observations. 	<ul style="list-style-type: none"> • Computers with internet access for research. • Notepads and pens, computers and tablets for notetaking. • Video links for activity 1: Inside Amazon www.youtube.com/watch?v=zknLfU7GJIw Amazon’s robots www.youtube.com/watch?v=g6DIFpaoI6A www.youtube.com/watch?v=UtBa9yVZBJM
6-7	<p>A1 Digital devices, their functions and use Function and use of digital devices – organisational</p>	IS GS	<ul style="list-style-type: none"> • Lead-in: 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). • Independent learning activity 1: 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 resources column. • Independent learning activity 2: Learners to prepare questions 	<ul style="list-style-type: none"> • Computers with internet access for research. • Notepads and pens, computers and tablets for notetaking. • Video links for



	<p>use.</p> <p>A2 Peripheral devices and media</p> <p>C2 Online systems</p> <p>E1 Online services</p>		<p>and areas of further clarification required ahead of guest speaker/visit.</p> <ul style="list-style-type: none"> • Guest speaker: A manager or technical support specialist from a local employer should give a talk on the use of IT systems (this could be substituted/combined with a visit to a large, local business to examine their use of IT systems). Learners to make notes of their findings and observations. 	<p>activity 1:</p> <p>IT in business www.youtube.com/watch?v=5Ik7rNkODT w</p> <p>Supply and IT www.youtube.com/watch?v=SXDvHgjRNDQ</p>
8	<p>A1 Digital devices, their functions and use</p> <p>Function and use of digital devices – retail.</p> <p>Function and use of digital devices – organisational use.</p> <p>A2 Peripheral devices and media</p> <p>E1 Online services</p>	RS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson/learning consolidation activity. • Tutor presentation: Discuss the command verbs used and how learners should structure their answers when presented with them. Definitions are in the specification. • Independent activity: Give learners a series of exam-style questions on IT use in retail and organisations. The tasks should have realistic vocational scenarios and consist of a variety of short, long and diagrammatical question responses. 	<ul style="list-style-type: none"> • List of command words and meanings. • Assessment tasks.



9	<p>A1 Digital devices, their functions and use Function and use of digital devices – creative tasks.</p> <p>A2 Peripheral devices and media</p> <p>C2 Online systems</p> <p>E1 Online services</p>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson. Give learners brief feedback on the assessment activity. Identify and highlight common issues/good practice relating to linking thoughts and ideas. • Independent learning activity: Learners to conduct research, and draw on their own experiences to produce notes on IT systems used for creative tasks. • Class discussion: As a class, discuss findings and share ideas. • Independent learning: Homework activity – learners to work through their assessment from previous lesson and improve their answers. 	<ul style="list-style-type: none"> • Assessment tasks with feedback. • Computers with internet access for research.
10	<p>A2 Peripheral devices and media Manual and automatic data processing.</p>	IS	<ul style="list-style-type: none"> • Tutor presentation: 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. • Independent learning activity: 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 link in the resources column: 'Is automated data processing or manual data entry the best option?' • Small group discussion: In pairs or small groups, learners discuss their findings and share ideas. • Independent learning: Set learners a challenge to identify an example emerging/novel/interesting use of data processing (eg RFID, or QR codes). 	<ul style="list-style-type: none"> • Computers with internet access for research. • Activity link: www.quora.com/Is-automated-data-processing-or-manual-data-entry-the-best-option-Why



11	<p>A2 Peripheral devices and media Manual and automatic data processing.</p> <p>A5 Choosing IT systems</p>	RS	<ul style="list-style-type: none"> • Lead-in: Learners to share their findings from the homework activity. • Small group activity: 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 resource column for more information. • Class discussion: Each group to present a summary of their scenario and solution to the rest of the class. 	<ul style="list-style-type: none"> • Scenarios for task. • Computers with internet access for research. • Flipchart or similar for learners to record discussions and ideas. • Video link for activity: Automated data capture www.youtube.com/watch?v=8ynC60PHBtc
12-13	<p>A2 Peripheral devices and media Accessibility devices.</p> <p>A4 Emerging technologies</p> <p>A5 Choosing IT systems</p>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson. Give learners a brief introduction to the definition and purpose of accessibility devices. • Independent learning activity 1: Learners to conduct initial research into the types of accessibility devices that improve access to IT systems. Learners should make brief notes. • Independent learning activity 2: Give learners a series of scenarios involving accessibility requirements. In each case, learners should suggest systems and devices that could be used to improve accessibility. They should justify their suggestions. See link on some ideas around accessibility apps (in addition to devices) in the resources column. • Small group discussion: In pairs or small groups, learners discuss their responses. 	<ul style="list-style-type: none"> • Scenarios for task. • Computers with internet access for research. • Link for activity 2: www.abilitynet.org.uk/sites/abilitynet.org.uk/files/AbilityNet%20Top%20Ten%20Accessible%20Apps.doc



14	<p>A2 Peripheral devices and media</p> <p>Characteristics and implications of storage media used to form part of an IT system.</p> <p>A4 Emerging technologies</p> <p>A5 Choosing IT systems</p>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson. Highlight the difference between storage and memory and the different role each plays in an IT system. • Small group activity: 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 resources column. • Knowledge quiz: Hold a brief informal quiz to check learners' understanding of the characteristics of storage media. • Independent activity: Give learners a realistic/vocational scenario and ask them to analyse to what extent different storage media would meet requirements. 	<ul style="list-style-type: none"> • Scenarios for task. • Computers with internet access for research. • Links for activity: Storage devices www.computerhope.com/jargon/s/stordevi.htm Storage devices and media www.youtube.com/watch?v=CaLkwKSQZSY Box Cloud Storage Review www.youtube.com/watch?v=Aqld5Y6WCE4
15	<p>A3 Computer software in an IT System</p> <p>Types of operating system.</p> <p>The role of operating systems.</p> <p>Factors affecting the choice of</p>	IS	<ul style="list-style-type: none"> • Tutor presentation: 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). • Small group activity: 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 resources column. • Independent learning activity: 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) • Small group activity: In pairs, learners should explore the sources 	<ul style="list-style-type: none"> • Computers with internet access for research. • Example devices/systems with different operating systems. • Links for activity: Android v IOS v Windows www.trustedreviews.com/opinions/which-



	<p>operating system.</p> <p>The principles and implications of open-source and proprietary operating systems.</p>		<p>and concepts and implications of open-source operating systems.</p>	<p>mobile-operating-system-is-best</p> <p>Mobile operating system comparison</p> <p>https://en.wikipedia.org/wiki/Comparison_of_mobile_operating_systems</p>
16	<p>A3 Computer software in an IT System</p> <p>Utility software.</p> <p>Application software.</p> <p>The principles and implications of open-source and proprietary software.</p>	IS	<ul style="list-style-type: none"> • Tutor presentation: Introduce the lesson. Discuss with learners the concept of utility software and application software and the distinction between the two. • Independent learning activity: Learners investigate the 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 links on Microsoft Office 365 across devices and operating systems and Open-Source vs Proprietary Software Pros and Cons in the resources column. • Small group activity: In pairs, learners should explore the sources and concepts and implications of open-source operating systems. • Independent activity: Learners to respond to an exam-style question relating to utility and application software. 	<ul style="list-style-type: none"> • Exam-style question (utility and application software). • Computers with internet access for research. • Links for activity: MS Office 365 www.youtube.com/watch?v=SG6OFF4_j58 Open-Source vs Proprietary Software www.optimusinfo.com/downloads/white-paper/open-source-vs-proprietary-software-pros-and-cons.pdf



17	<p>A3 Computer software in an IT System</p> <p>Factors affecting the choice and use of user interfaces.</p> <p>The impact and features of user interfaces in computer software.</p>	IS	<ul style="list-style-type: none"> • Lead-in: Give learners opportunities to explore different devices, programs and systems that utilise different types of interface. • Small group activity 1: 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. • Small group activity 2: Each group to take turns to present their findings to the rest of the class. 	<ul style="list-style-type: none"> • Example devices/systems with different interfaces. • Computers with internet access for research. • Flipchart or similar for learners to record discussions and ideas.
18	<p>A3 Computer software in an IT System</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>B3 Issues relating to the transmission of data</p>	IS	<ul style="list-style-type: none"> • Tutor presentation: Introduce the lesson. Give learners an overview of the concepts of file types and formats with reference, in particular, to images, video and applications software. • Paired activity: 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. 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 resources column for access to some free high-quality images that the learners can use. • Class discussion: Learners discuss the outcomes of the file format task (eg how size affected their use or requirement to install software). 	<ul style="list-style-type: none"> • Scenarios for task. • Example files for task. • Computers with internet access for research. • Activity link: https://pixabay.com/



	The use and implications of codecs when using and transmitting audio and video.			
19–20	A4 Emerging technologies	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the concept of emerging technologies. Explain how technology and IT systems are constantly evolving and the impact this has on individuals and organisations. • Individual activity: 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, 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 resources column. • Class activity: 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. 	<ul style="list-style-type: none"> • Computers with internet access for research. • Presentation/screen sharing facilities. • Link for activity: www.technologyreview.com/lists/technologies/2016/
21–22	A5 Choosing IT systems	RS	<ul style="list-style-type: none"> • Lead-in: Through a Q&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. • Individual activity: 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 	<ul style="list-style-type: none"> • Specification extract to support learners (A5.1). • Scenarios for task.



			formal written report.	
Topic B: Transmitting data				
23	<p>B1 Connectivity Wireless and wired methods of connecting devices and transmitting data.</p>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson. Ask learners to name as many connection types as they can think of, grouping them into wired and wireless connections. • Class activity: Give feedback on the list that the learners compiled. Suggest any connections that they may have missed. • Group activity: 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. • Class discussion: Discuss the learners' outcomes, correcting any misconceptions and technical inaccuracies. • Plenary: 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. 	<ul style="list-style-type: none"> • Flipchart or similar for learners to record discussions and ideas. • Scenarios for plenary.
24	<p>B1 Connectivity Wireless and wired methods of connecting devices and transmitting data. How the features of</p>	IS RS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson. Use Q&A to check learners' understanding of the topics from last lesson. • Class discussion: Explore the concept of how the choice of connection type affects the performance of a larger system. 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 resources column. • Individual activity: 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"> • Scenarios for tasks. • Link for discussion: www.netgear.co.uk/images/pdf/WP_WirelessSiteSurveys.pdf



	<p>connection types can meet the needs of individuals and organisations.</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>		<ul style="list-style-type: none"> ○ create a diagram showing how the systems will connect ○ annotate the diagram to explain the connections used, the data being transferred and the direction of data transfer ○ justify their choice of connections used in comparison to other possible connections. 	
25	<p>B2 Networks</p> <p>The features, use and purpose of different networks.</p>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson. Draw learners' attention to the four main types of network listed in B2. • Independent learning activity: 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. • Class discussion: As a class, discuss findings and share ideas. • Note: If time and resources allow, supplement/extend this lesson with a practical activity allowing learners to create different small scale networks. 	<ul style="list-style-type: none"> • Computers with internet access for research.
26	<p>B2 Networks</p> <p>The features, use and</p>	RS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson. Use Q&A to check learners' understanding from the last lesson. • Class discussion: Explore the factors affecting the choice of 	<ul style="list-style-type: none"> • List of factors to support learners (spec extract B2.2).



	<p>purpose of different networks.</p> <p>The factors affecting the choice of network.</p> <p>How the features of a network and its components affect the performance of an IT system.</p>		<p>network.</p> <ul style="list-style-type: none"> • Individual activity: Give learners a vocational scenario detailing the use of different networks (the scenario should contain examples of good and not so good practice). Learners should evaluate the choice of network/networks, suggesting improvements and alternatives, as appropriate. 	<ul style="list-style-type: none"> • Scenario(s) for task.
27	<p>B3 Issues relating to the transmission of data</p> <p>Protocols used to govern and control data transmission for common tasks.</p>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson. Explain the concept of protocols (what they are used for and why). • Independent learning activity: Learners to conduct research on the protocols used for common IT tasks. See link on UDP and TCP: Comparison of Transport Protocols in the resources column. • Class discussion: As a class, discuss findings and share ideas. 	<ul style="list-style-type: none"> • Computers with internet access for research. • Video link for activity: www.youtube.com/watch?v=Vdc8TCESIg8
28	<p>B Transmitting data</p> <p>The implications of selecting and using different</p>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson by exploring the concept of bandwidth and latency and some of the factors that may affect them. • Small group activity: 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 	<ul style="list-style-type: none"> • Scenarios for tasks.



	<p>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> <p>The implications of bandwidth and latency on the use and performance of an IT system.</p>		<p>latency might occur. The groups should suggest ways in which the system might be improved.</p> <ul style="list-style-type: none"> • Class discussion: One person from each group to feed back the outcomes of their group task to the rest of the class. 	
29	B3 Issues relating to the transmission	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson. Explain the concept of compression (what it is used for and why and how it works). • Independent learning activity: Based on independent research, learners to produce a technical 'help manual' explaining the concept 	<ul style="list-style-type: none"> • Computers with internet access for research. • Video links for



	<p>of data</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>		<p>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 resources column.</p>	<p>activity:</p> <p>Compression types www.youtube.com/watch?v=q5e2dZ_8ESU</p> <p>Compression and Normalisation www.youtube.com/watch?v=9kal7soRvT0</p>
Topic C: Operating online				
30	<p>C1 – Online systems</p> <p>The personal and professional uses and applications of cloud storage.</p>		<ul style="list-style-type: none"> • Lead-in: Through Q&A, establish learners' baseline understanding of 'cloud storage'. It is likely that knowledge and examples will relate to personal rather than professional use. • Group activity: 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. See link on the implications of cloud computing in the resources column. • Class discussion: As a class, discuss findings and share ideas. 	<ul style="list-style-type: none"> • Computers with internet access for research. • Flipchart or similar for learners to record discussions and ideas. • Link for activity: www.dmwgroup.com/implications-cloud-computing/
31	<p>C1 Online systems</p>		<ul style="list-style-type: none"> • Lead-in: Through Q&A, check learners' understanding of the content from the previous lesson. Introduce the concept of cloud computing, 	<ul style="list-style-type: none"> • Task sheets and success criteria.



	<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>highlighting the difference between cloud computing and cloud storage.</p> <ul style="list-style-type: none"> • Individual activity: 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. • Paired activity: 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. • Class discussion: Allow groups to share their discussions with the wider group. 	<ul style="list-style-type: none"> • Computers with internet access. • Access to a cloud based service. • Suitable locally installed software.
32	<p>C1 – Online systems</p> <p>The impact and implications on individuals of cloud computing and storage.</p> <p>The impact and implications on organisations of cloud computing and storage.</p>	RS	<ul style="list-style-type: none"> • Lead-in: 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. • Individual activity: 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'. • Paired activity: Allow learners to swap and discuss their responses and interpretation of the question. • Individual activity: Learners redraft/improve their responses based on their discussion. 	<ul style="list-style-type: none"> • List of command words and meanings. • Exam-style question for task.
33	C2 Online	IS	<ul style="list-style-type: none"> • Lead-in: Learners should identify and discuss types of 'online 	<ul style="list-style-type: none"> • Flipchart or similar



	<p>communities</p> <p>Ways of communicating and interacting with online communities.</p> <p>The implications for individuals of using and accessing online communities.</p>		<p>community' and the communication tools they offer. Ensure that learners are aware of, and use, specific terms and not brand names.</p> <ul style="list-style-type: none"> • Group activity: In groups, learners discuss and conduct research on the uses and implications of online communities for individuals • Class discussion: As a class, discuss findings and share ideas. • Individual activity: Homework task – learners to prepare questions to ask the guest speaker. 	<p>for learners to record discussions and ideas.</p>
34	<p>C2 Online communities</p> <p>Ways of communicating and interacting with online communities.</p> <p>The implications for organisations of using and accessing online communities.</p>	GS	<ul style="list-style-type: none"> • Lead-in: Introduce guest speaker and highlight to learners that in this lesson they will look at online communities used by organisations. • Guest speaker: 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. • Class discussion: Learners ask speaker prepared questions. 	<ul style="list-style-type: none"> • Notepads and pens, computers and tablets for notetaking.
35–36	<p>C1 – Online systems</p> <p>C2 – Online</p>	RS IS	<ul style="list-style-type: none"> • Lead-in: Through use of Q&A, check learners' understanding of topic C. Introduce the task that they will be focusing on this lesson. • Individual activity: Supply learners with a vocational scenario that 	<ul style="list-style-type: none"> • Scenario for task. • Extract from specification to



	communities		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.	support learners during task.
Topic D: Protecting data and information				
37	<p>D1 Threats to data, information and systems</p> <p>The characteristics of threats to data.</p> <p>The impact of threats to data, information and systems on individuals.</p> <p>B3 Issues relating to transmission of data</p> <p>Security issues and considerations when transmitting data over different connection types.</p>	IS	<ul style="list-style-type: none"> • Lead-in: As a class, learners thought shower the potential threats to data. Use Q&A to establish the level of learners' knowledge of how, where and why these threats occur. • Independent learning activity: Learners conduct research on the characteristics of different threats to data and the impact of this on individuals. • Class discussion: As a class, discuss findings and share ideas. • Independent activity: Learners should prepare questions for the guest speaker (lessons 42–43). 	<ul style="list-style-type: none"> • Computers with internet access for research.
38	D1 Threats to data,	IS	<ul style="list-style-type: none"> • Lead-in: Use Q&A to remind learners of topics covered last lesson. 	<ul style="list-style-type: none"> • Computers with internet access for



	<p>information and systems</p> <p>The characteristics of threats to data.</p> <p>The impact of threats to data, information and systems on organisations.</p> <p>B3 Issues relating to transmission of data</p> <p>Security issues and considerations when transmitting data over different connection types.</p>		<ul style="list-style-type: none"> • Independent learning activity: 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 resources column. • Class discussion: As a class, discuss findings and share ideas. • Independent activity: Learners prepare questions for guest speaker (lessons 42–43). 	<p>research.</p> <ul style="list-style-type: none"> • Video link for activity: Cyber Security www.youtube.com/watch?v=S2xMS4z7ngc
39–40	<p>D1 Threats to data, information and systems</p> <p>D2</p>	IS	<ul style="list-style-type: none"> • Lead-in: Use Q&A to test learners' understanding of threats to data. • Individual activity 1: Set learners a challenge to each find one feature, one characteristic and one implication of using antivirus software and/or firewalls. • Class discussion: Discuss the learners' findings and facilitate 	<ul style="list-style-type: none"> • Computers with internet access for research. • Flipchart or similar for learners to record



	<p>Protecting data</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>The features, characteristics and implications of using firewalls to protect systems.</p> <p>E2 Impact on organisations</p> <p>The features and implications of IT systems used by organisations for security.</p>		<p>discussion to ensure that learners are aware of a range of features, characteristics and implications.</p> <ul style="list-style-type: none"> • Small group activity 1: 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 and implications of their assigned technique. • Small group activity 2: Each group should take turns to present their findings to the rest of the class. 	<p>discussions and ideas.</p> <ul style="list-style-type: none"> • Presentation/screen sharing facilities.
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41	<p>D2 Protecting data</p> <p>The features, applications and implications of encryption methods.</p>	IS	<ul style="list-style-type: none"> • Lead-in: 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. • Independent learning activity: 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 • Class discussion: As a class, discuss findings and share ideas. • Independent activity: Homework task – prepare questions on encryption for guest speaker/visit (lessons 42–43). 	<ul style="list-style-type: none"> • Encryption starter activity. • Computers with internet access for research. • Video links for activity: Introduction to Encryption 1 www.youtube.com/watch?v=vCDe14NxSY0 Introduction to Encryption 2 www.youtube.com/watch?v=KEWGoXE6zMo Introduction to Encryption 3 www.youtube.com/watch?v=wZ9SnV6ySeM
42–43	<p>D1 Threats to data, information and systems</p> <p>D2 Protecting data</p>	GS	<ul style="list-style-type: none"> • Tutor presentation: Give an introduction and overview of the legislation and codes of practice for the protection of data. • Individual activity: Learners make notes on legislation and codes of practice. Learners also prepare and refine questions for the guest speaker. • Guest speaker: 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. • Class discussion: Learners ask the speaker their prepared questions 	<ul style="list-style-type: none"> • Computers with internet access for research. • Notepads and pens, computers and tablets for notetaking.



			and take notes, as appropriate.	
44	<p>D1 Threats to data, information and systems</p> <p>D2 Protecting data</p>	RS	<ul style="list-style-type: none"> • Lead-in: Hold a brief Q&A session on protecting data and systems. Remind learners of the meaning of different command words. • Individual activity: Give learners a set of exam-style questions set in a vocational scenario that focuses on topic D. 	<ul style="list-style-type: none"> • List of command words and meanings • Exam-style question for task.
Topic E: Impact of IT systems				
45–48	<p>E1 Online services</p> <p>The features and implications of using online services.</p> <p>The uses, impact and implications for individuals and organisations of:</p> <ul style="list-style-type: none"> • transactional data • targeted marketing. 	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the activity and give an overview of the range of areas learners should consider when investigating online services. • Individual activity: 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. <p>This could include retail, financial services (financial advisers), education, entertainment and leisure and booking systems (eg health) – see links in the resources column.</p>	<ul style="list-style-type: none"> • Computers with internet access for research. • Links for activity: Retail www.nibusinessinfo.co.uk/content/advantages-and-disadvantages-online-retail Financial services www.bankhall.co.uk/ Education www.educate.co.uk/ Entertainment www.thecloud.net/wifi/case-studies/entertainment-and-leisure/ Booking systems https://patient.emis



				access.co.uk/account/login
49	<p>E2 Impact on organisations</p> <p>The features and implications of IT systems used by organisations for:</p> <ul style="list-style-type: none"> • stock control. 	IS	<ul style="list-style-type: none"> • Lead-in: Introduce lesson and give a brief overview of stock control systems. • Independent learning activity: Learners conduct research on the features and implications of stock control systems including uses and system components. • Class discussion: As a class, discuss findings and share ideas. 	<ul style="list-style-type: none"> • Computers with internet access for research.
50 (2 hour lesson)	<p>E2 Impact on organisations</p> <p>The features and implications of IT systems used by organisations for:</p> <ul style="list-style-type: none"> • data logging • data analysis. 	IS	<ul style="list-style-type: none"> • Lead-in: Introduce lesson and give a brief overview of data logging and data analysis systems. • Independent learning activity: Learners conduct research into the features and implications of data logging and analysis systems, including uses and system components. • Class discussion: As a class, discuss findings and share ideas. 	<ul style="list-style-type: none"> • Computers with internet access for research.
51	<p>E2 Impact on organisations</p>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce lesson and give a brief overview of IT systems for office and creative tasks. • Independent learning activity: Learners to conduct research on 	<ul style="list-style-type: none"> • Computers with internet access for research.



	<p>The features and implications of IT systems used by organisations for:</p> <ul style="list-style-type: none"> • general office tasks • creative tasks. 		<p>the features and implications to organisations of systems used for office and creative tasks.</p> <ul style="list-style-type: none"> • Class discussion: As a class, discuss findings and share ideas. 	
52	<p>E2 Impact on organisations</p> <p>The features and implications of IT systems used by organisations for:</p> <ul style="list-style-type: none"> • advertising 	IS	<ul style="list-style-type: none"> • Lead-in: Introduce lesson and give a brief overview of IT systems used for advertising. • Independent learning activity: 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 resources column. • Class discussion: As a class, discuss findings and share ideas. 	<ul style="list-style-type: none"> • Computers with internet access for research. • Link for activity: www.capterra.com/advertising-agency-software/
53–54	<p>E2 Impact on organisations</p> <p>The features and implications of IT systems used by</p>	VS	<ul style="list-style-type: none"> • Tutor presentation: Give an overview of systems used in manufacturing and facilitate discussion regarding the impact of these systems. • Independent activity: Prepare questions and notes on areas of further interest/study for planned visit. • Visit: Learners to visit a local employer to investigate the use of IT systems in manufacturing and related business processes. 	<ul style="list-style-type: none"> • Notepads and pens, computers and tablets for notetaking.



	<p>organisations for:</p> <ul style="list-style-type: none"> • manufactur ing. 			
55–57	<p>E2 Impact on organisations</p> <p>The features and implications of IT systems used by organisations.</p> <p>The impact and implications for organisations of IT systems.</p>	RS	<ul style="list-style-type: none"> • Knowledge quiz: Hold an informal quiz on the features of IT systems used by organisations. • Tutor presentation: Remind learners of the requirements of exam command words. • Individual activity 1: Supply learners with a set of short exam-style questions set in a vocational scenario that focuses on topic E2. • Individual activity 2: 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. 	<ul style="list-style-type: none"> • List of command words and meanings. • Exam-style questions for task. • Case studies for task • Specification extract (E2.2).
58 (2 hour lesson)	<p>E3 Using and manipulating data</p> <p>Sources of data.</p> <p>Judging and ensuring reliability of data.</p>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson by defining primary and secondary sources of data. • Small group activity: 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 resources column. • Class discussion: Learners share and discuss their ideas. • Small group activity: Learners research and make notes on ways of judging and ensuring the reliability of data from each of the identified sources. 	<ul style="list-style-type: none"> • Computers with internet access for research. • Flipchart or similar for learners to record discussions and ideas. • Links for activity: Primary and Secondary Sources www.youtube.com/w



				<p>atch?v=pmno-Yfctd8</p> <p>Data collection</p> <p>www.ascd.org/publications/books/100047/chapters/Data-Collection@-Building-a-Valid-and-Reliable-Data-Collection-Plan.aspx</p> <p>Validity and reliability in surveys</p> <p>www.relevantinsights.com/validity-and-reliability#sthash.DDIIn4X4.dpbs</p>
59	<p>E3 Using and manipulating data</p> <p>The characteristics and implications of methods of collecting data.</p>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce lesson and give a brief overview of methods of collecting data, as listed in the specification. • Independent learning activity: Learners conduct research on the features and implications of each collection method. See video link on primary and secondary data in the resources column. • Knowledge quiz: Hold an informal quiz about features, benefits and drawbacks of different collection methods. 	<ul style="list-style-type: none"> • Video link for activity: www.youtube.com/watch?v=59Ik5kGhGII
60	<p>E3 Using and manipulating data</p> <p>Reasons for ensuring data accuracy.</p> <p>Methods of</p>	IS	<ul style="list-style-type: none"> • Lead-in: 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 in the resources column. • Class discussion: Discuss what happened when the data was 	<ul style="list-style-type: none"> • Spreadsheet/database for starter. • Link for starter: www.techrepublic.com/blog/five-apps/five-tips-for-avoiding-data-entry-



	ensuring data accuracy.		<p>entered. Explore why only some fields behaved as expected. Discuss the implications of using/not using data validation.</p> <ul style="list-style-type: none"> • Small group task: 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. • Tutor presentation: Introduce and explain the concept of data verification. • Individual learning activity: Learners should make notes on methods and implications of data verification. 	<p>errors-in-excel/</p> <ul style="list-style-type: none"> • List of test data/test plan. • Scenarios for tasks. • Computers with internet access for research.
61-63	<p>E3 Using and manipulating data</p> <p>Methods of extracting and sorting data.</p> <p>Numerical and data modelling.</p> <p>Presenting data and results.</p>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the concept of using spreadsheets as a numerical data modelling tool. • Individual learning activities: Learners should complete a series of practical tasks using a spreadsheet to: <ul style="list-style-type: none"> ○ sort and extract data ○ model 'what if' scenarios ○ present data and results. • Class discussions: Use class and small group discussion to explore how these tools can be used by individuals and organisations and the implications of their use. 	<ul style="list-style-type: none"> • Spreadsheet modelling software. • Scenario and task sheets.
64-66	<p>E3 Using and manipulating data</p> <p>Methods of extracting and sorting data.</p> <p>Numerical and data modelling.</p>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the concept of using databases as a numerical data modelling tool. • Individual learning activities: Learners complete a series of practical tasks using a database to: <ul style="list-style-type: none"> ○ sort and extract data ○ model 'what if' scenarios ○ present data and results. • Class discussions: Use class and small group discussion to explore how these tools can be used by individuals and organisations and the 	<ul style="list-style-type: none"> • Database software. • Scenario and task sheets.



	Presenting data and results.		implications of their use.	
67–69	<p>E3 Using and manipulating data</p> <p>The characteristics of user interfaces for data collection and processing</p>	IS	<ul style="list-style-type: none"> • Lead-in: Supply learners with examples of user interfaces (UIs) used to capture data (database forms, questionnaires, surveys, etc). Learners should identify uses of the characteristics listed in the specification. • Individual learning activity 1: Learners should carry out independent research into accessibility features and their application in UIs for data collection systems. • Individual learning activity 2: Learners design and create UIs for data capture systems using a range of different tools (eg database and spreadsheet forms and online survey tools). • Class discussion(s): Use class and small group discussion to explore how these tools can be used by individuals and organisations and the implications of their use. 	<ul style="list-style-type: none"> • Scenario and task sheets.
70–71	<p>E3 Using and manipulating data</p>	RS	<ul style="list-style-type: none"> • Knowledge quiz: Hold an informal quiz on the key points covered in lessons 55–57. • Tutor presentation: Remind learners of the requirements of exam command words. • Individual activity 1: Give learners a set of short exam-style questions that are set in a vocational scenario that focuses on topic E3. • Individual activity 2: 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. 	<ul style="list-style-type: none"> • List of command words and meanings. • Exam-style questions for task. • Case studies for task.
Topic F: Issues				
72–73	<p>F1 Moral and ethical issues</p>	IS	<ul style="list-style-type: none"> • Small group activity: Learners thought shower the factors to consider relating to privacy for individuals and organisations. 	<ul style="list-style-type: none"> • Computers with internet access for



	The moral and ethical factors of the use of information technology. Privacy. Freedom of speech and censorship.		<ul style="list-style-type: none"> • Class discussion: Clarify relevant areas relating to privacy. • Individual activity: Learners should produce a written response explaining the implications of privacy for individual and organisational use of IT systems. • Class discussion: Explore the issues of freedom of speech and censorship. 	research.
74–75	F1 Moral and ethical issues The moral and ethical factors of the use of information technology. Environmental.	IS	<ul style="list-style-type: none"> • Small group activity: Learners thought shower the environmental factors to consider relating to use of IT systems. • Individual activity 1: 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 resources column. • Individual activity 2: Supply learners with a set of short exam-style questions set in a vocational scenario that focuses on environmental issues. 	<ul style="list-style-type: none"> • Computers with internet access for research. • Exam-style questions. • Link for activity 1: www.nap.edu/read/6322/chapter/2
76 (2 hour lesson)	F1 Moral and ethical issues The moral and ethical factors of the use of information technology. Unequal access to information technology.	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the concept of unequal access. Using Q&A and class discussion, explore some of the causes of unequal access. • Small group activity: 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 resources section. • Class discussion: As a class, discuss findings and share ideas. 	<ul style="list-style-type: none"> • Computers with internet access for research • Link for activity: https://09obioraha.wordpress.com/tag/unequal-access/
77	F1 Moral and	IS	<ul style="list-style-type: none"> • Lead-in: Continue the concept of unequal access. Use Q&A and class 	<ul style="list-style-type: none"> • Computers with



	<p>ethical issues</p> <p>The moral and ethical factors of the use of information technology.</p> <p>Online behaviour and net etiquette.</p>		<p>discussion to explore ideas and experiences.</p> <p>Small group activity: 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 resources section.</p> <ul style="list-style-type: none"> • Class discussion: As a class, discuss findings and share ideas. 	<p>internet access for research.</p> <ul style="list-style-type: none"> • Flipchart or similar for learners to record discussions and ideas. • Links for activity: Bad behaviour online www.youtube.com/watch?v=RVSAFhTjAdc Netiquette www.education.com/reference/article/netiquette-rules-behavior-internet/
78	<p>F1 Moral and ethical issues</p> <p>The moral and ethical factors of the use of information technology.</p> <p>Globalisation.</p>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the concept of globalisation. Using Q&A and class discussion, explore ideas and experiences. • Individual learning activity: 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 resources section. • Plenary: Supply learners with a series of short exam-style questions relating to globalisation. 	<ul style="list-style-type: none"> • Computers with internet access for research. • Exam-style questions. • Video link for activity: www.youtube.com/watch?v=PPjdQeRvGMw
79	<p>F1 Moral and ethical issues</p> <p>The moral and ethical factors of the use of</p>	IS	<ul style="list-style-type: none"> • Lead-in: Supply learners with examples of acceptable use policies from a range of organisations. In small groups, learners should explore commonalities between the examples. • Group activity: In groups, learners should explore how and why acceptable use policies are used and the implications for individuals 	<ul style="list-style-type: none"> • Examples of acceptable use policies. • Flipchart or similar for learners to record



	information technology. Acceptable use.		and organisations of using them (or not). See the link to a sample acceptable use policy in the resources column. <ul style="list-style-type: none"> • Class discussion: As a class, discuss findings and share ideas. 	discussions and ideas. <ul style="list-style-type: none"> • Link for activity: www.getsafeonline.org/themes/site_themes/getsafeonline/download_centre/Sample_Acceptable_Usage_Policy.pdf
80	<p>F2 Legal issues</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</p>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson, by giving an overview of the Computer Misuse Act. • Individual learning activity: 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 resources column. • Class discussion: As a class discuss, findings and share ideas. 	<ul style="list-style-type: none"> • Computers with internet access for research. • Link for activity: www.legislation.gov.uk/ukpga/1990/18/contents



	misuse).			
81	<p>F2 Legal issues</p> <p>The role of current legislation in protecting users and their data from attack and misuse – Copyright designs 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>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson by giving a brief overview of the Copyright Design and Patents Act 1988. • Group activity: 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 real life example of the act being breached by an IT system user. See link to Computer Misuse Act 1990 legal cases in the resources column. • Class discussion: As a class, summarise the key points of the act and share examples. 	<ul style="list-style-type: none"> • Computers with internet access for research. • Link for activity: www.computerevidenc.co.uk/Cases/CM A.htm
82	<p>F2 Legal issues</p> <p>The role of current legislation in protecting users and their</p>	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson by giving an overview of the Copyright Design and Patents Act 1988. • Individual learning activity: 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 	<ul style="list-style-type: none"> • Computers with internet access for research. • Link for activity: www.hse.gov.uk/msd/dse/guidance.htm



	data from attack and misuse – The health and safety (display screen equipment) regulations 1992.		for working with display screen equipment in the resources column. <ul style="list-style-type: none"> • Class discussion: As a class, discuss findings and share ideas. 	
83	F2 Legal issues The role of current legislation in protecting users and their data from attack and misuse – The Data Protection Act.	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson by giving a brief overview of the Data Protection Act. • Group activity: 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 resources column. • Class discussion: As a class, summarise the key points of the act and share examples. 	<ul style="list-style-type: none"> • Computers with internet access for research. • Link for activity: www.gov.uk/data-protection/the-data-protection-act
84	F2 Legal issues Guidelines and current legislation designed to ensure the accessibility of IT systems.	IS	<ul style="list-style-type: none"> • Lead-in: Introduce the lesson discussing the idea of, and the need for, accessibility features in IT systems. • Individual learning activity: 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 resources column. • Individual activity: Homework task – learners to plan questions for guest speaker. 	<ul style="list-style-type: none"> • Computers with internet access for research. • Link for activity: www.webcredible.com/blog/disability-discrimination-act-dda-web-accessibility/



85	<p>F2 Legal issues</p> <p>Guidelines and current legislation designed to ensure the accessibility of IT systems.</p>	GS	<ul style="list-style-type: none"> • Lead-in: Use Q&A to remind learners of topics covered relating to moral and legal issues. • Guest speaker: A digital designer/software developer to give a talk on the use of accessibility features in digital products and IT systems. • Class discussion: Learners ask prepared questions. 	<ul style="list-style-type: none"> • Notepads and pens, computers and tablets for notetaking.
86–87	<p>F1 Moral and ethical issues</p> <p>F2 Legal issues</p>	RS	<ul style="list-style-type: none"> • Knowledge quiz: Hold an informal quiz on the key points covered – topic F. • Tutor presentation: Remind learners of requirements of exam command words. • Individual activity 1: Supply learners with a set of short exam-style questions set in a vocational scenario that focus on topics F1 and F2. • Individual activity 2: Supply learners with vocational scenarios that require them to analyse the relevant legal, moral and ethical issues. 	<ul style="list-style-type: none"> • List of command words and meanings. • Exam-style questions for task. • Case studies for task. • Specification extracts (F2.1 & F2.3).
88–89	<p>Whole specification</p>	RS	<ul style="list-style-type: none"> • Lead-in: Introduce the purpose of the lessons: to look at the SAMs. • Tutor presentation: Explain the structure of the paper. Reiterate the meaning of different command words. • Individual tasks: Learners should work through the paper in exam conditions. 	<ul style="list-style-type: none"> • Sample assessment materials (SAMs).
90–91	<p>Whole specification</p>	RS	<ul style="list-style-type: none"> • Lead-in: Introduce the purpose of the lessons: to identify areas of improvement informal exam settings. • Class/small group activities: Learners should work through their responses, either in a class activity led by the tutor or in small groups using the mark scheme facilitated by the tutor. Learners should explore where they have not achieved as well and look at how to improve their responses. 	<ul style="list-style-type: none"> • SAMs. • SAM mark schemes. • List of command words and meanings.



92–96	Whole specification	RS	<ul style="list-style-type: none"> • Lead-in: Introduce the purpose of the lessons: to be able to plan IT systems to meet specific needs. • Individual activity 1: 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. • Individual activity 2: Learners produce a written justification of their proposed system. • Group activity: Learners discuss their solutions, share ideas and improve the appropriateness of their system. 	<ul style="list-style-type: none"> • Scenarios for tasks.
97–101	Whole specification	RS	<ul style="list-style-type: none"> • Lead-in: Introduce the purpose of the lessons: to look at how to improve performance on the short and medium response exam questions. • Tutor presentation: Reiterate the meaning of different command words. For each of the command words, look at examples of response structures from published mark schemes and/or highlight points from the Lead Examiner reports (if available). • Individual tasks: Give learners example questions from either the SAMs or past papers, or ones that the tutor has prepared. Allow them to respond to these in exam conditions. Tutors could supply example responses that learners could critique. 	<ul style="list-style-type: none"> • Example questions. • Example mark schemes. • Example responses. • Lead Examiner reports.
102–110	Whole specification	RS	<ul style="list-style-type: none"> • Lead-in: Introduce the purpose of the lessons: to look at how to improve performance on the extended writing questions. • Tutor presentation: Reiterate the meaning of different command words. For each of the 'extended writing' command words, look at the structure of the level-based mark schemes and what the descriptors mean. • Individual tasks: Give learners example extended questions from either the SAMs or past papers, or ones that the tutor has prepared. Allow them to respond to these in exam conditions. Tutors could supply example responses that learners could critique. • Small group tasks: Learners should discuss/share their interpretations of the questions. They could do a peer-marking 	<ul style="list-style-type: none"> • Example extended questions. • Level-based mark schemes. • Example responses.



			activity.	
111-116	Whole specification	RS	<ul style="list-style-type: none"> • Lead-in: Introduce the purpose of the lessons: to allow learners to work on areas of the specification they find challenging. Ask them to look through the specification (and their work from the last few lessons) and identify where they think they need additional focus. • Tasks: Supply 'stations' in different areas of the room that learners can use, based on their areas of weakness. 	<ul style="list-style-type: none"> • Example questions. • Example mark schemes. • Example responses. • Specifications.