KS4 - Year 11 – Digital - Curriculum Long Term Planning 22-23

Year 11 Digital	HT1 Sept – Oct (8 weeks)	HT2 Nov – Dec (7 weeks)	HT3 (Jan – Feb (6 weeks)	HT4 Mar – Apr (6 weeks)	HT5 Apr – May (6 weeks)	HT6 Jun – Jul (7 weeks)
Topic Big Idea/Question	**Controlled assessment Component 2** Learners to work on a specific project allocated. **Component in brief** Learners will understand the characteristics of data and information and how they help organisations in decision making. They will use data manipulation methods to create a dashboard to present and draw conclusions from information.		**Component 3 AO1, AO2, AO3, AO4– Exam Unit** **AO1 Modern Technolgies** Demonstrate knowledge of facts, terms, processes, and issues in relation to digital information technology. **AO2 Cyber Security** Demonstrate an understanding of facts, terms, processes, and issues in relation to digital information technology. **AO3 Wider implications of digital systems** Apply an understanding of facts, terms, processes, and issues in relation to digital information technology. **AO4 Planning and communication I digital systems** Make connections with the concepts, issues, terms, and processes in digital information technology.			X
Why this and why now? What is the content doing here? How does it integrate to prior learning or prepare students for future learning? Is it an opportunity for cumulative learning or to achieve proficiencies? Does it provide a	*Why now?* *Learners have completed component 1 so are now on component 2. Learners must complete component 2 before they can be entered for component 3 the examination component.* Learners must complete CA in controlled conditions and within the time frame agreed by the exam board. There is a finite amount of time to do this. The window opens in September and closes in December to complete the assessment. Underpinning knowledge needed for (Component 3) Learners will do 1 week prep and 1 week write up for each task.		Component 3 is the last component of the Btec course and is the exam component. Components 1&2 must be completed before component 3 Component 3 draws together concepts learned in components 1&2 along with new information from component 3. Learners will go through the SOL in order AO1, AO2, AO3, AO4.			X

step to collective sufficiency?	Learners will be given tasks to do at home and will be able to write in their books for use in the assessment.		
What is the essential knowledge that needs to be remembered? What are the key facts, skills, and experiences that you want students to remember? What are the substantive and disciplinary concepts? Does the knowledge selected mean students leave with a good understanding? <u>Substantive – key facts</u> <u>Disciplinary-Methods of subjects</u> <u>Procedural- Skills</u>	**Controlled assessment Component 2** Learners need to ensure they have their notes book to help them with the CA. They are not allowed to use any other material apart from their own notes. Learners will need to ensure they include information on the following: **Task 1: Data collection methods** Learning outcome A: Understand how data is collected and used by organisations and its impact on individuals **Tasks 2a and 2b: Use data manipulation methods** Learning outcome A: Understand how data is collected and used by organisations and its impact on individuals Learning outcome B: Be able to create a dashboard using data manipulation tools **Task 2c: Create a dashboard** Learning outcome A: Understand how data is collected and used by organisations and its impact on individuals Learning outcome B: Be able to create a dashboard using data manipulation tools. **Task 3a: Effectiveness of the dashboard**	**Learning Aim A: Modern technologies** Learners should learn about how current and modern technologies are used by and have an impact on organisations and their stakeholders. Learners need to know the ways in which organisations and associated individuals use modern technologies to exchange information, communicate, and complete work-related tasks. Learners must be able to apply their knowledge to a range of vocational contexts. Aspects to be learned: • Communication technologies • Cloud storage and computing • Cloud storage and traditional ICT compatibility • Modern technology and global aspects • Positive and negative impacts of technology on organisations and individuals. • Changes to Modern Teams **Learning Aim B: Cyber Security** Learners must understand how the increased reliance of organisations on digital systems to hold data and perform vital functions presents a range of challenges and dangers. They should understand the nature of threats to digital systems and ways that they can be mitigated through organisation policy, procedures and the actions of individuals. They should be able to apply knowledge of cyber security to a range of vocational contexts. Aspects to be learned: • Threats to data including internal and external threats. • Impacts of security breaches • Protection and restriction of access • Improving security • Policies and procedures • Actions and responses • User access **Learning Aim C: Wider implications of digital systems** Learners should understand the wider implications of digital systems and their use. Learners should understand how legislation covering data protection, computer crimes and intellectual property has an impact on the way that organisations and	X

		Learning outcome A: Understand how data is collected and used by organisations and its impact on individuals

Learning outcome C: Be able to draw conclusions and review data presentation methods

Task 3b: How presentation affects understanding

Learning outcome A: Understand how data is collected and used by organisations and its impact on individuals

Learning outcome C: Be able to draw conclusions and review data presentation methods

Information learners will need to know:
- A1 Characteristics of data and information.
- A2 Representing information.
- A3 Ensuring data is suitable for processing.
- A4 Data collection.
- A5 Quality of information.
- A6 Sectors that use data modelling.
- A7 Threats to individuals.
- B1 Data processing methods.
- B2 Produce a dashboard.
- C1 How to draw clusions based on findings in the data.
- C2 How presentation of data affects understanding. | individuals use digital systems and data. Learners should understand the procedures that organisations must follow in order to conform to legal requirements and professional guidelines.

Aspects to be learned:
- Responsible use of technology
- Sharing data
- Environmental aspects to technology
- Legal and Ethical use
- Data protection principles
- Criminality and computer systems
- Planning communication systems

Learning Aim D: Planning and Communication of digital systems
Learners should be able to interpret and use standard conventions to combine diagrammatical and written information to express an understanding of concepts.

Aspects to be learned:
- Notation and data systems
- Presenting notation forms
- Flowcharts
- Information flow diagrams
- Data flow diagrams | |
| | **What is the assessment intent and how will you assess?** | The assessment comes from the exam board and is split into 5 activities. Each activity covers each of the Learning Aims.

Learners have 10 hours to complete the assessment. | Assessment takes place via Do Now and Plenary in class.

Homework is given each week to check understanding. | X |

What types of assessments and question stems are being used to demonstrate students are learning and progressing to produce ever higher standards of work? What formative assessment is there for component learning and summative for composite learning?	Each assessment has 4 mark bands. The total for each Learning Aim is 12 marks split in grade boundaries: Mark band 1 – (1-3) Mark band 2 – (4-6) Mark band 3 – (7-9) Mark band 4 – (10-12) The total marks are out of 60	Each sub-unit of work has an assessment and students will do this once the sub unit of work is complete. Summative assessment takes place at the end of the unit of work This is to check understanding and not be part of the final grade for the assignment. Adapted and balanced examination-style questions to meet needs identified throughout and because of the Mock Examinations. Final Examination Mid-May 2022		
What should the end point look like What is the impact of this component on the student's learning? What should the learning now look like via the assessment? Is disciplinary language used?	**Task 1: Data collection methods** Learners will be able to identify the key aspects that make up data. They will be able to identify and explain the following: - A1 Characteristics of data and information. - A2 Representing information. - A3 Ensuring data is suitable for processing. - A4 Data collection. - A5 Quality of information. - A6 Sectors that use data modelling. - A7 Threats to individuals. Learners will also need to explain how each aspect relates to a specific industry. **Tasks 2a and 2b: Use data manipulation methods** Learners will be able to create a spreadsheet from information that they have received and modify the spreadsheet so there is an output that meets the criteria. Learners will be able to use manipulation	Learners will be able to identify the key aspects of how modern technology has impacted on society. They will be able to identify and explain: - Communication technologies - Cloud storage and computing - Cloud storage and traditional ICT compatibility - Modern technology and global aspects - Positive and negative impacts of technology on organisations and individuals. - Changes to Modern Teams Learners will be able to understand the need for cyber security and identify different methods of cyber security. Learners will be able to identify and explain: - Threats to data including internal and external threats. - Impacts of security breaches - Protection and restriction of access - Improving security - Policies and procedures - Actions and responses - User access	X	

tools to modify their spreadsheet. Once the spreadsheet has been completed learners will then be able to create a dashboard.

Task 2c: Create a dashboard
Learners will be able to create a dashboard for themselves which encompasses each item from learning aim A.

Once the dashboard has been created learners will be able to use tools to modify the dashboard so it's provides the correct information for the criteria.

Task 3a: Effectiveness of the dashboard
Task 3b: How presentation affects understanding

Learners will be able to identify and explain the main aspects of dashboard on the information that it provides. Learners will be able to explain how they created the dashboard and what the positives and negatives were in creating the dashboard.

Learners will be able to explain the strengths and weaknesses of their dashboard.

Learners will be able to identify different aspects of digital systems and the need for processes to keep those digital systems safe and working. Learners will be able to identify and explain:
- Responsible use of technology
- Sharing data
- Environmental aspects to technology
- Legal and Ethical use
- Data protection principles
- Criminality and computer systems
- Planning communication systems

Learners will be able to identify planning methods of digital systems and the plan relates to the individual system. Learners will be able to identify and explain:
- Notation and data systems
- Presenting notation forms
- Flowcharts
- Information flow diagrams
- Data flow diagrams

Students will have completed work booklet Component 3 Learning aim A.
Mock assessment papers for learning aim A. Within written responses students will show an understanding of subject specific terminology and an understanding of how to answer question correctly – giving reasons for answers.

Students will have completed work booklet Component 3 Learning aim B.
Mock assessment papers for learning aims A and B. Within written responses students will show an understanding of subject specific terminology and an understanding of how to answer question correctly

Students will have completed work booklet Component 3 Learning aim C.
Mock exam papers. Within written responses students will show an understanding of subject specific terminology and an understanding of how to answer question correctly.

Students will have completed work booklet Component 3 Learning aim D.
Mock exam papers. Within written responses students will show an understanding of subject specific terminology and an understanding of how to answer question correctly.

			Students will reach target grade in the examination.	
	Wider Curriculum Links	The learning will link to current affairs – GREAT Lives, and the world outside of school. Numeracy and Literacy skills will be used as well as references to technological developments, historical events, and geographical areas. **Curriculum links to:** Maths English Science Graphics	The learning will link to current affairs – GREAT Lives, and the world outside of school. Numeracy and Literacy skills will be used as well as references to technological developments, historical events, and geographical areas. **Curriculum links to:** Maths English Science	X