

SUBJECT: BTEC DIT

Key Stage 4: Curriculum Intent (BRIEF):

Term	Year 10	Year 11
Autumn	<p><u>Topic: Component 1: Exploring User Interface Design Principles and Project Planning Techniques</u></p> <p><u>Content covered, including knowledge and skills:</u></p> <p><u>Task 1a: Project proposal</u></p> <ul style="list-style-type: none">- Target Audience- Success Criteria- Accessibility Needs- Design Principles <p><u>Task 1b: Planning timescales</u></p> <ul style="list-style-type: none">- Gantt Charts- Identifying Tasks and Subtasks- Identifying Milestones and Dependencies <p><u>Task 2: Interface designs</u></p> <ul style="list-style-type: none">- Identifying and Explaining the use of Design Principles and Accessibility Features <p><u>Task 3: Prototype user interface</u></p> <ul style="list-style-type: none">- Creating a working prototype UI in PowerPoint	<p><u>Topic: Component 3: Effective Digital Working Practices</u></p> <p><u>Content covered, including knowledge and skills:</u></p> <ul style="list-style-type: none">- A - Modern Technologies- B - Cyber Security- C - The wider implications of digital systems- D - Planning and communication in digital systems <p><u>Links to prior learning:</u></p> <ul style="list-style-type: none">- Networks- Ethics- Computer Security- Algorithms <p><u>Career opportunities:</u></p> <ul style="list-style-type: none">- Hardware Engineer- Software Developer- IT Technician- Network Manager- Web Designer- HR Manager

Task 4: Review user interface

- Evaluating the use of Design Principles, Accessibility Features, Ease of Use and User Requirements in UI.
- Explaining improvements to UI to better meet user requirements.

Links to prior learning:

- Year 9: User Interface Design
- Year 9: Websites and HTML
- Year 7: HT Stakeholder Project

Links to British Values and SMSC

Students will learn about the many different ways of interacting with Computer Systems that they can find in the world around them. Students will also be creating their own User Interface for a client and will need to learn various planning techniques, methodologies and types of evaluation in order to meet client expectations.

Career opportunities:

- UI Designer
- Project Manager
- Programmer
- Software Designer

- Systems Administrator

Links to British Values and SMSC

Students will learn how organisations use digital systems and the implications of their use. Organisations have become more global in recent years which has had an impact on how they operate and how they use technology to facilitate this. Students will look this in a range of vocational contexts so that they gain a greater understanding of these technologies and give judgements on the effectiveness of the systems for organisations.

Literacy: Key words and terminology:

- Ad Hoc
- Infrastructure
- Blackspots
- Scalability
- Collaboration
- Synchronisation
- Maintenance
- Interface
- Accessibility
- Remote Working
- Cloud Computing
- Flexibility
- Espionage
- Malware

	<p><u>Literacy: Key words and terminology:</u></p> <ul style="list-style-type: none"> - GUI - Target Audience - Design Principles - Serif/Sans-serif - Whitespace - House Style - Accessibility Needs - Constraints - Demographics - Navigation - Gantt Chart - Task/Subtask - Dependency - Milestone - Timescales - Requirements - Feedback - Hyperlink 	<ul style="list-style-type: none"> - Phishing - Biometrics - Encryption - Hacking (White/Grey/Black Hat) - Disaster Recovery - Cookies - Acceptable User Policies - Net Neutrality - Data Protection
Spring/Summer	<p><u>Topic: Component 2: Collecting, Presenting and Interpreting Data</u></p> <p><u>Content covered, including knowledge and skills:</u></p> <p><u>Task 1: Data Collection Methods</u></p> <ul style="list-style-type: none"> - Data Collection Methods - Data Reliability - Quality of Data - Improving Data Collection Methods 	

- Threats to Data for Individuals

Task 2a/Task 2b: Data Manipulation Methods

- Using Spreadsheet Formulas and Functions
- Using Data Manipulation Methods

Task 2c: Create a Dashboard

- Showing summaries of data using a range of presentation methods and features

Task 3a: Effectiveness of a dashboard

- Finding trends, patterns and errors in a given dashboard.

Task 3b: How presentation affects understanding

- Justification of presentation features used to display summaries and information.

Links to prior learning:

- Year 8 - Spreadsheets
- Year 8 - Ethics and Law

Links to British Values and SMSC:

Students will know about ways in which data and information can be used by organisations to aid with the decisions they need to make. There are ways of manipulating data in order for it to be useful and

presentable so that decisions can be made. Students will learn advanced features of Microsoft Excel and create their own dashboard in order to look at the resulting information and draw conclusions.

Career opportunities:

- Database Manager
- HR Manager
- Administrator
- Entrepreneur

Literacy: Key words and terminology

- Processed
- Validation
- Verification
- Primary Data
- Secondary Data
- Sample
- Big Data
- Accuracy
- Sectors
- Modelling
- Privacy
- Inaccurate
- Manipulation
- Dashboard
- Presentation

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| | <ul style="list-style-type: none">- Trend- Anomalies- Bias- Formula- Word Wrap- Pivot Table- Slicer- Dynamic Chart- Sparklines- Presentation | |
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