Subject: BTEC Tech Award – Digital Information Technology

Curriculum Intent Document:

	Year 10	Year 11
Autumn 1	**Topic:** Component 1: Exploring User Interface Design Principles and Project Planning Techniques **Content covered, including knowledge and skills:** **Task 1a: Project proposal** • Target Audience • Success Criteria • Accessibility Needs • Design Principles **Task 1b: Planning timescales** • Gantt Charts • Identifying Tasks and Subtasks • Identifying Milestones and Dependencies **Task 2: Interface designs** • Identifying and Explaining the use of Design Principles and Accessibility Features **Task 3: Prototype user interface** • Creating a working prototype UI in PowerPoint	**Topic:** Component 3: Effective Digital Working Practices **Content covered, including knowledge and skills:** - A - Modern Technologies - B - Cyber Security - C - The wider implications of digital systems - D - Planning and communication in digital systems **Links to prior learning:** - Networks - Ethics - Computer Security - Algorithms **Career opportunities:** - Hardware Engineer - Software Developer

	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. **<u>Links to prior learning:</u>** - Case Study – Charity Presentation - Ethics - Websites and HTML **<u>Links to British Values and SMSC</u>** 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. **<u>Career opportunities:</u>** - UI Designer - Project Manager - Programmer - Software Designer	- IT Technician - Network Manager - Web Designer - HR Manager - Systems Administrator **<u>Links to British Values and SMSC</u>** 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. **<u>Literacy: Key words and terminology:</u>** - Ad Hoc - Infrastructure - Blackspots - Scalability - Collaboration - Synchronisation - Maintenance - Interface - Accessibility

	<u>Literacy: Key words and terminology:</u> - Graphical User Interface - Response Time - Accessibility - Cognitive - Skill Level - Demographics - Navigation - Gantt Chart - Task Dependency - Milestone - Timescales - Constraints - Evaluation - User Requirements - Project Requirements	- Remote Working - Cloud Computing - Flexibility - Espionage - Malware - Phishing - Biometrics - Encryption - Hacking (White/Grey/Black Hat) - Disaster Recovery - Cookies - Acceptable User Policies
Autumn 2		
Spring 1	**<u>Topic:</u>** Component 2: Collecting, Presenting and Interpreting Data **<u>Content covered, including knowledge and skills:</u>** - To investigate the role and impact of using data on individuals and organisations	

	- To create a dashboard using data manipulation tools - To draw conclusions and review data presentation methods **Links to prior learning:** - Spreadsheets - Ethics - Algorithms **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	

	<u>Literacy: Key words and terminology</u> - Data Processing - Validation - Verification - Primary Data - Secondary Data - Sample Size - Big Data - Accuracy - Modelling - Data Protection - Reliability - Manipulation - Dashboard - Presentation - Trends - Errors	
Spring 2		
Summer 1		
Summer 2		