



This year in Digital Information Technology: Exploring Interface Design we will be learning:		This links to:	Key Vocabulary:	
1	What is a user interface: - Software and hardware features of interfaces - How these features can aide human interaction with IT systems - Types of user interface including text, speech, GUI, sensor and menu - What re the factors that influence the choice of an interface type	Building on knowledge from Key stage 3 regarding design principles and the impact of the target audience on the design of digital artifacts. This links to Level 3 BTEC IT and the knowledge applied to the design of social media posts for specific target audiences.	Interface Audience GUI Sensors Interaction	Hardware Software
2	Audience needs: To what extent will the following needs impact and affect both the type and design of a user interface; accessibility, skill level, demographics	Building on knowledge from Key stage 3 regarding design principles and the impact of the target audience on the design of digital artifacts. This links to Level 3 BTEC IT and the knowledge applied to the design of social media posts for specific target audiences.	Demographic Accessibility Competence	
3	Design principles: - How the use of colour, font, language, layout can impact on the design suitability of user interfaces - Intuitive design principles including the use of graphics to denote what buttons do, helpful pop-up messages, easy-to-use help features and ensuring consistency	Building on knowledge from Key stage 3 regarding design principles and the impact of the target audience on the design of digital artifacts. This links to Level 3 BTEC IT and the knowledge applied to the design of social media posts for specific target audiences.	Consistency Graphics Font Intuitive	
4	Project planning techniques - Planning tools including task lists, written or graphical descriptions, Gantt charts, critical path diagram, PERT charts, mood boards and mind maps. - Project methodologies including waterfall and iterative	Builds on key stage 3 methodology of plan, build, review and looks in greater depth at the stages of project planning and introduces the concept of contingency time. This links to Level 3 IT and the skills applied in the planning and management of coursework components in Unit 3 and Unit 5.	Gantt Chart Critical Path Moodboard Mindmap	Iterative Contingency Dependency Methodology
5	How to develop and review a user interface Developing a user interface - Develop a user interface that demonstrates awareness of intended device, the user requirements have been met, the overall look and feel and ease of use. Refining the user interface - Refining the designs by presenting the design to potential users, refining the interface to account for potential user feedback, repeating the iterative process until the design is complete. Review a user interface - Identify strengths and weaknesses of the user interface, e.g.: how well the user requirements have been met, suitability for audience and purpose, ease of use, how effectively the design principles have been met and areas that could be developed to better meet audience needs/design principles.	Builds on key stage 3 methodology of plan, build, review and looks in greater depth at the stages of project planning and introduces the concept of contingency time. This links to Level 3 IT and the skills applied in the planning and management of coursework components in Unit 3 and Unit 5.	Refine Iterative Evaluate Methodology	



This year in Digital Information Technology: Collecting, presenting and interpreting data we will be learning:		This links to:	Key Vocabulary:	
1	The characteristics of data and information - Data has no meaning, structure, context and is unprocessed - Information has meaning, structure, context and is processed	Building on knowledge from Key stage 3 regarding information and data and how it is stored and managed in systems. This links to Level 3 IT and where students will be required to select and process data turning it into information in both written examinations and coursework scenarios.	Data Information Structure Context Processed Unprocessed	
2	Data collection methods and how the method can impact on reliability and quality - Data collection methods: primary data is information collected directly from source and secondary data is information collected by third party - Features of data collection that could impact on reliability; the size of the sample, who was in the sample, when was the data collected and what methods were used. - Features of data collection that could impact on quality; source, accuracy, age, completeness, amount of detail, format and volume	This links to previous KS3 learning about data collection and primary and secondary data and feeds into Level 3 IT as students are required to select data capture methods and apply them to a scenario provided for coursework.	Primary Secondary Reliability Source Accuracy	Volume
3	How to create a data dashboard using data manipulation tools - Data manipulation methods: - importing data, e.g. from other files, the internet - formulae, e.g. add, divide, subtract, multiply - decision-making functions, e.g. IF, WHATIF, SUMIF - lookup functions, e.g. VLOOKUP, HLOOKUP - string operation functions, e.g. LEFT, RIGHT - count functions, e.g. COUNTBLANK, COUNTIF - logical operators, e.g. NOT, AND, OR - sorting, e.g. sorting multiple columns and values - outline, e.g. group, ungroup, subtotal - filtering, e.g. greater than, less than, equals, contains, begins with, ends with - text to columns, e.g. delimited, fixed width. - Produce a data dashboard - Show data summaries from the data set including totals, counts, averages, percentages and allocations. - Use appropriate presentation methods including form controls, graphs and charts, pivot tables, conditional formatting. - Use appropriate presentation features including font size and colour, cell borders, graphics, axis labels and titles.	Builds on prior spreadsheet learning at KS3 from basic functions and formula and formatting and prepares students for Level 3 IT where they need to apply these data manipulation tools to a given coursework scenario and extract information for a given purpose using a dashboard.	Manipulation Import Export Function Operator Dashboard Delimited Logical Count	
4	How to draw conclusions and review presentation methods - Drawing conclusions based on data by identifying trends, patterns, anomalies and possible errors. - Making recommendations which target customers or advertisements, deploy staff efficiently or to adapt transport or working schedules - Assess how presentation can impact understanding to ensure that information is not misinterpreted, biased or inaccurate conclusions are not made.	Builds on key stage 3 methodology of plan, build, review and looks in greater depth at the identification of trends and patterns and introduces. This links to Level 3 IT and the skills applied in the planning and management of coursework components in Unit 3 and Unit 5.	Trends Patterns Anomalies Efficiency	Misinterpret