Year 10 - Scheme of Learning

Word Rich - Oracy, Vocabulary, Reading, Writing	SMSC & Values	Careers & Employability	Enrichment & Cultural Capital	Equality, Diversity & Inclusivity
❖ Digital language used throughout	●	● Links to future careers	● Enrichment trips and after school clubs on offer to broaden knowledge	●

Formal Assessments (Title/Date)			Blended Learning	Home Learning
❖ Mock June 2023 ❖ Coursework ❖ Unit 3 Exam			● All work is carried out on a PC or Chromebook	●

Unit of Work	Knowledge and *Skills*	Curriculum Links and Sequencing	National Curriculum *(including KS2)*
Component 1 - Understand interface design for individuals and organisations *8 Weeks*	★ *Understand interface design for individuals and organisations* ★ *Learners will understand the use of different types of user interface and how they vary across different uses, devices and purposes* ★ *Learners will understand the varying needs of the audience and how they affect both the type and the design of the interface* ★ *Learners will understand how design principles provide both appropriate and effective user interaction with hardware devices*	BTEC: ➔ A1 User interfaces ➔ A2 Audience needs ➔ A2 Audience needs ➔ A4 Designing an efficient user interface Wider Curriculum: ➔ Research ➔ Business - Needs of an audience	● design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems ● understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems ● undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users ● develop their capability, creativity and knowledge in computer science, digital media

	★ Learners will understand the techniques that can be used to improve both the speed and access to user interfaces.		and information technology
Be able to use project planning techniques to plan, design and develop a user interface C Be able to review a user interface *8 Weeks*	★ *Be able to use project planning techniques to plan, design and develop a user interface* ★ *Learners will understand the use of different planning tools and design methodologies that can be used to plan, monitor and execute projects.* ★ *Learners will understand project planning techniques used to develop a project proposal and project plan for the development of a user interface for a given brief.* ★ *Learners will understand how to produce an initial design using design principles* ★ *Learners will understand how to use their design to produce a user interface* ★ *Learners will understand how to review the success of the user interface and the use of their chosen project planning techniques*	BTEC: ➜ B1 Project planning techniques ➜ B2 Creating a project proposal and plan ➜ B3 Creating an initial design ➜ B4 Developing a user interface ➜ C1 Review Wider Curriculum: ➜ Maths - Charts ➜ Business - SMART objectives ➜ D&T - Planning and reviewing ➜ Science - Testing and evaluating	● develop and apply their analytic, problem-solving, design, and computational thinking skills ● understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits ● undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users ● create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability
Revision Window *4 Weeks*	★ *Revise all of Component 1*		
Assessment Window *8 Weeks*	★ *Develop the user interface* ★ *Follow a plan and create the user interface.* ★ *obtain feedback from potential users* ★ *use the feedback to refine the user interface* ★ *assess the success of the user interface and the use of your chosen project planning techniques justifying decisions made.*	BTEC: Learning outcomes ➜ A Understand interface design for individuals and organisations ➜ B Be able to use project planning techniques to plan, design and develop a user interface ➜ C Be able to review a user interface.	● develop and apply their analytic, problem-solving, design, and computational thinking skills ● understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits

		Wider Curriculum:	
		Wider Curriculum: ➔ Research ➔ Business - Needs of an audience ➔ Maths - Charts ➔ Business - SMART objectives ➔ D&T - Planning and reviewing ➔ Science - Testing and evaluating	• undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users • create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability
Assessment Window *8 Weeks*	★ *Develop the user interface* ★ *Follow a plan and create the user interface.* ★ *obtain feedback from potential users* ★ *use the feedback to refine the user interface* ★ *assess the success of the user interface and the use of your chosen project planning techniques justifying decisions made.*	BTEC: Learning outcomes ➔ A Understand interface design for individuals and organisations ➔ B Be able to use project planning techniques to plan, design and develop a user interface ➔ C Be able to review a user interface. Wider Curriculum: ➔ Research ➔ Business - Needs of an audience ➔ Maths - Charts ➔ Business - SMART objectives ➔ D&T - Planning and reviewing ➔ Science - Testing and evaluating	• develop and apply their analytic, problem-solving, design, and computational thinking skills • understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits • undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users • create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability
Component 2 - Understand how data is collected and used by organisations and its impact on individuals	★ *Learners will understand how different types of data are used by organisations for data modelling* ★ *Learners will understand the different threats that face individuals who have data stored about them.*	BTEC: ➔ A6 Sectors that use data modelling ➔ A7 Threats to individuals Wider Curriculum: ➔ Research ➔ Maths - Data ➔ PSHE - esafety	• understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct and know how to report concerns.

5 Weeks			
Component 2 - Be able to create a dashboard using data manipulation tools *5 Weeks*	★ *.Learners will understand how data can be imported from an external source. They will then explore how to accurately apply data processing methods to aid decision making.* ★ *Learners will use a dashboard to select and display information summaries based on a given data set.*	BTEC: ➔ B Be able to create a dashboard using data manipulation tools ➔ B1 Data processing methods ➔ B2 Producing a dashboard Wider Curriculum: ➔ Research ➔ Maths - Data, spreadsheets, charts, formulas, mean,mode, median	● develop and apply their analytic, problem-solving, design, and computational thinking skills ● undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users

Year 11 - Scheme of Learning

Word Rich - Oracy, Vocabulary, Reading, Writing	SMSC & Values	Careers & Employability	Enrichment & Cultural Capital	Equality, Diversity & Inclusivity
❖	●	●	●	●

Formal Assessments (Title/Date)		Blended Learning	Home Learning
❖ Nov Mock ❖ ❖		●	●

Unit of Work	Knowledge and *Skills*	Curriculum Links and Sequencing	National Curriculum *(including KS2)*
Component 2 Collecting, Presenting and	★ *Learners will understand how data can be imported from an external source. They will then explore how to apply data processing methods*	BTEC: Learning outcomes ➔ B1 Data processing methods ➔ B2 Produce a dashboard	● develop and apply their analytic, problem-solving, design, and computational thinking skills

Interpreting Data *8 Weeks*	★ *Learners will use a dashboard to select and display information summaries based on a given large data set.* ★ *Learners will draw conclusions on the data set, using their dashboard in order to make recommendations.* ★ *Learners will assess how well they have used the presentation features listed in B2*	➔ C1 Drawing conclusions based on the data ➔ C2 How presentation affects understanding Wider Curriculum: ➔ Research ➔ Maths - Charts ➔ Science - Testing and evaluating ➔ Science - Evaluating and concluding	• understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits • undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users • create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability
Component 3: Effective Digital Working Practices Revision *8 Weeks*	★ *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.* ★ *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.*	BTEC: Learning outcomes ➔ AO1 Demonstrate knowledge of facts, terms, processes and issues in relation to digital information technology ➔ AO2 Apply an understanding of facts, terms, processes and issues in relation to digital information technology ➔ AO3 Analyse, evaluate and make reasoned judgements about the use, factors and implications influencing digital information technology ➔ AO4 Make connections with the concepts, issues, terms and processes in digital information technology Wider Curriculum: ➔ Research ➔ Maths - Charts ➔ Science - Testing and evaluating ➔ Science - Evaluating and concluding	• develop and apply their analytic, problem-solving, design, and computational thinking skills • understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits • undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users • create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability

	★ 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 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. ★ Learners should understand how individuals in the digital sector plan solutions and communicate meaning and intention. They should understand how different forms of written and diagrammatical communication can be used to express understanding and demonstrate the flow of data and information.		