Subject Long Term Plan

As ICT underpins today's modern lifestyle it is essential that all pupils gain the confidence and ability, that they need in this subject, to prepare them for the challenge of a rapidly developing and changing technological world in a responsible and ethical manner.

Year 10

UDW 1

Purpose and Aim: Understand interface design for individuals and organisations.

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Understand different types of user interfaces used by individuals and organisations.	Understand the factors affecting the choice of user interface. Understand hardware and software influences.	Be able to investigate the needs of audiences and how they affect the design of interfaces.	Understand design principles for effective user interaction.	Investigate a variety of design principles.	Investigate techniques that can improve the speed and access to user interfaces.	Complete a learning review of the topics covered.

- Pupils will be able to investigate the waterfall, agile and scrum methodologies;
- Pupils will be able to develop an initial design using the given design principles;
- Pupils will be able to develop a prototype of their initial design;
- Pupils will be able to review the success of my user interface including the strengths and weaknesses.

UDW 2

Purpose and Aim: Be able to use project planning techniques to plan, design and develop a user interface.

Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14
Understand what project planning tools are used to plan a user interface. Be able to investigate the waterfall, agile and scrum development methodologies.	When creating a project proposal understand the following: - Purpose and audience - Project requirements - User accessibility requirements - Constraints When creating a project plan understand: - Timescales - Key milestones.	Create an initial design that includes: - The user requirements - Input and output requirements - User accessibility needs - Produce a design specification that includes: - Visualisation such as storyboard and sketches - Hardware and software requirements	Develop an initial design using the given design principles.	Be able to review the success of the user interface including the strengths and weaknesses. Suggest improvements that could be made to the user interface to better meet the audience needs.	Apply their knowledge in answers to a range of questions. Be able to highlight areas of strength and any gaps in their understanding of this learning outcome.	Complete a learning review of the topics covered.

- Pupils will be able to write a project proposal to meet a client's needs;
- Pupils will be able to develop an initial design using the given design principles;
- Pupils will be able to develop a prototype of their initial design;
- Pupils will be able to review the success of my user interface including the strengths and weaknesses.

UDW 3

Purpose and Aim: Be able to use project planning techniques to plan, design and develop a user interface.

Week 15	Week 16	Week 17	Week 18	Week 19	Week 20	Week 21
Understand what project planning tools are used to plan a user interface. Be able to investigate the waterfall, agile and scrum development methodologies.	When creating a project proposal understand the following: - Purpose and audience - Project requirements - User accessibility requirements - Constraints When creating a project plan understand: - Timescales - Key milestones	Create an initial design that includes: - The user requirements - Input and output requirements - User accessibility needs - Produce a design specification that includes: - Visualisation such as storyboard and sketches - Hardware and software requirements	Develop an initial design using the given design principles.	Be able to review the success of the user interface including the strengths and weaknesses. Suggest improvements that could be made to the user interface to better meet the audience needs.	Apply their knowledge in answers to a range of questions. Be able to highlight areas of strength and any gaps in their understanding of this learning outcome.	Complete a learning review of the topics covered.

- Pupils will be able to write a project proposal to meet a client's needs;
- Pupils will be able to develop an initial design using the given design principles;
- Pupils will be able to develop a prototype of their initial design;
- Pupils will be able to review the success of my user interface including the strengths and weaknesses.

UDW 4

Purpose and Aim: Be able to use project planning techniques to plan, design and develop a user interface.

Week 22	Week 23	Week 24	Week 25	Week 26	Week 27	Week 28
Understand what project planning tools are used to plan a user interface. Be able to investigate the waterfall, agile and scrum development methodologies.	When creating a project proposal understand the following: - Purpose and audience - Project requirements - User accessibility requirements - Constraints When creating a project plan understand: - Timescales - Key milestones	Create an initial design that includes: - The user requirements - Input and output requirements - User accessibility needs - Produce a design specification that includes: - Visualisation such as storyboard and sketches - Hardware and software requirements	Develop an initial design using the given design principles.	Be able to review the success of the user interface including the strengths and weaknesses. Suggest improvements that could be made to the user interface to better meet the audience needs.	Apply their knowledge in answers to a range of questions. Be able to highlight areas of strength and any gaps in their understanding of this learning outcome.	Complete a learning review of the topics covered.

- Pupils will be able to write a project proposal to meet a client's needs;
- Pupils will be able to develop an initial design using the given design principles;
- Pupils will be able to develop a prototype of their initial design;
- Pupils will be able to review the success of my user interface including the strengths and weaknesses.

UDW 5

Purpose and Aim: Be able to create a dashboard using data manipulation tools.

Week 29	Week 30	Week 31	Week 32	Week 33	Week 34	Week 35
Understand how data can be imported from an external source. Explore how to accurately apply data processing methods to aid decision making.	Use different types of data manipulation methods to the imported data.	Use appropriate presentation features to make your imported data more presentable.	Use conditional formatting, to include data bars, colour scales, icon sets.	Create visuals, to include automatic navigation, change graph options, change data ranges.	Use a dashboard to select and display information summaries based on a given data set.	Use a dashboard to select and appropriate presentation methods based on a given data set.

- Pupils will be able to import data from an external source and add presentation techniques to make the data more presentable;
- Pupils will be able to use the basic and advanced features of spreadsheets;
- Pupils will be able to produce a dashboard that contains data summaries including totals and counts;
- Pupils will be able to produce a dashboard that contains graphs and charts.

Year 11

UDW 1

Purpose and Aim: Be able to create a dashboard using data manipulation tools.

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Use a dashboard to select and display information summaries based on a given data set.	Use a dashboard to select and appropriate presentation methods based on a given data set.	Use different types of data manipulation methods to the imported data.	Use appropriate presentation features to make your imported data more presentable.	Use conditional formatting, to include data bars, colour scales, icon sets.	Create macros, to include automatic navigation, change graph options, change data ranges.	Use a dashboard to select and display information summaries based on a given data set.

- Pupils will be able to produce a dashboard that contains data summaries;
- Pupils will be able to import data from an external source and add presentation techniques to make the data more presentable;
- Pupils will be able to use the basic and advanced features of spreadsheets;
- Pupils will be able to produce a dashboard that contains data summaries including totals and counts.

UDW 2

Purpose and Aim: Understand how the concepts of data and information are used to manage teams, to enable stakeholders to access tools and services, and to communicate effectively.

Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14
Understand the concepts of data and that data is meaningless without converting it into information by adding structure and context.	Understand the different types of data collection methods, the strengths and weaknesses of each, how data collection features affect its reliability and how the collection of data could be improved.	Use a dashboard to select and display information summaries based on a given data set.	Use a dataset and dashboard to present findings and draw conclusions based on their findings.	Investigate how well the presentation methods and features have been used.	Learn about how current and modern technologies are used by and use an impact analysis to organisations and their stakeholders. Learners need to know the ways in which organisations and individuals use modern technologies to exchange information, communicate, and complete work-related tasks.	Understand how technologies are used to manage teams, to enable stakeholders to access tools and services, and to communicate effectively.

- Pupils will be able to write a report about the concepts of data and information;
- Pupils will be able to write a report outlining the different methods of data collection;
- Pupils will be able to use a dashboard to present finding and draw conclusions from the given summaries;
- Pupils will be able to explain the implications for organisations when using modern technologies.

UDW 3

Purpose and Aim: Understand how the increased reliance of organisations on digital systems to hold data and perform vital functions presents a range of challenges and dangers.

Week 15	Week 16	Week 17	Week 18	Week 19	Week 20	Week 21
Understand why systems are attacked, the nature of attacks and how they occur, and the potential impact of breaches in security on organisation and businesses.	Understand what external threats (threats outside the organisation) there are that could affect digital systems and data security.	Understand what internal threats (threats within the organisation) there are that could affect digital systems and data security.	Understand the impact of the different security breaches have on digital systems and data security.	Understand the different types of user access and what the restrictions can, such as: physical security measures, passwords, using correct settings and levels of permitted access, biometrics and two factor authentication.	Understand how to protect data such as: firewall, software/interface design, anti-virus software, device security, security measures for backing up and recovering data, encryption of stored data and encryption of transmitted data.	Understand the current the constitutes a good security policy and how it is communicated to individuals in an organisation. To ensure that learners understand the impact of security breaches are minimised, learners should understand how procedures in security policies are implemented in organisation's.

- Pupils will be able to understand why computer systems are attacked;
- Pupils will be able to describe the external threats virus, Trojan, phishing and shoulder surfing;
- Pupils will be able to describe the internal threats virus, Trojan, phishing and shoulder surfing;
- Pupils will be able to understand the impact of security breaches including data and financial loss.

UDW 4

Purpose and Aim: Consider the responsible use of digital systems, including how systems and services share and exchange data as well as the environmental considerations of increased use.

Week 22	Week 23	Week 24	Week 25	Week 26	Week 27	Week 28
Understand what is meant by shared data (location-based data, transactional data, cookies, data exchange between services), such as: Benefits of using shared data, disadvantages of using shared data, responsible use (legal considerations, privacy, ethical use).	Understand the environmental considerations of increased data use, such as: impact of mass factoring, use, and disposal of IT systems and equipment, considerations when upgrading or replacing digital systems and usage and settings policies.	Understand the importance of providing equal access to services and information, such as: benefits to organisations, individuals and society, legal requirements and professional guidelines/accepted standard	Understand the purpose and use of acceptable use policies, such as: scope – who the document applies to, assets – the equipment, documents, and knowledge that are covered, acceptable – behaviours that are expected/required by an organisation, unacceptable – behaviours that are not allowed by an organisation, monitoring – description of how behaviour is monitored by an organisation, enforcement – defining the processes and potential sanctions if unacceptable behaviour occurs.	Understand how organisations use different forms of notation to explain systems, data and information.	Be able to interpret information presented using different forms of notation or a range of contexts.	Be able to present knowledge and understanding using different forms of notations.

- Pupils will be able to describe the benefits and drawbacks of using shared data;
- Pupils will be able to identify the benefits to organisations, individuals and society of equal access;
- Pupils will be able to draw an accurate flowchart representing a more complex scenario or algorithm;
- Pupils will be able to present knowledge and understanding of using different forms of notations.

UDW 5

Purpose and Aim: To review knowledge for Component 3 exam.

Week 29	Week 30	Week 31	Week 32	Week 33	Week 34	Week 35
Develop my exam technique by answering short and long style exam questions for Component 3 exam.	**Develop my exam technique by answering short and long style exam questions for Component 3 exam.**	**End of Course**				

- Pupils be able to review their knowledge of long and short answer exam style questions for Component 3

Year 12 - Unit 1

UDW 1

Purpose and Aim: The purpose and structure of relational database management systems.

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Introduction to Information technology including key terms.	Describe the functions and features of a DBMS.	Investigate scenarios and resolve relationships to ensure data integrity.	Assess a given database against the client requirements (mock paper 1). Create and ERD structure using exam techniques.	Create forms to facilitate database solutions (mock paper 1).	Respond to formative comments made by tutor.	Create queries to facilitate database solutions (mock paper 1).

- Pupils will be able to explain how a database needs to be structured;
- Pupils will be able to explain different entity relationships;
- Pupils will be able to understand how relationships are used in a relational database;
- Pupils will be able to determine primary keys and foreign keys in a table to minimise data integrity.

UDW 2

Purpose and Aim: Standard methods and techniques to design relational database solutions.

Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14
Create the database against the client requirements (mock paper 2 - Part a).	Create the table structure to meet a clients needs (mock paper 2 - Part a).	Create an ERD structure to meet a clients needs (mock paper 2 - Part a).	RESPOND to formative comments made by my tutor.	Create queries to facilitate a database solution (mock paper 2 - Part a).	RESPOND to formative comments made by my tutor.	Create reports to facilitate a database solution (mock paper 2 - Part a).

- Pupils will be able to plan a relational database for a given scenario;
- Pupils will be able to use a given relational database;
- Pupils will be able to create forms for inputting data;
- Pupils will be able to test and evaluate how well my database structure meets these requirements.

UDW 3

Purpose and Aim: To evaluate the impact of social media on the ways in which businesses promote their products and services.

Week 15	Week 16	Week 17	Week 18	Week 19	Week 20	Week 21
Produce a report based on the research for assessment criteria B.P1.	Justify planning decisions made, ensure that the plan will fulfil its purpose and business requirements.	Produce a report based on the research for assessment criteria B.M2.	Produce business-related content using appropriate social media features.	Produce a report based on the research for assessment criteria C.P5.	Review data obtained on social media usage and interaction.	Produce a report based on the research for assessment criteria C.P6.

- Pupils will be able to cross social media content using appropriate social media features;
- Pupils will be able to add social media content to a social media site;
- Pupils will be able to justify their planning decisions;
- Pupils will be able to review data produced from a social media campaign for a business.

UDW 4

Purpose and Aim: To evaluate the impact of social media on the ways in which businesses promote their products and services.

Week 22	Week 23	Week 24	Week 25	Week 26	Week 27	Week 28
Analyse the database against the client requirements (mock paper 3 - Part a).	Create the table structure to meet a clients needs (mock paper 3 - Part a).	Create an ERD structure to meet a clients needs (mock paper 3 - Part a).	RESPOND to formative comments made by my tutor.	Create queries to facilitate a database solution (mock paper 3 - Part a).	RESPOND to formative comments made by my tutor.	Create reports to facilitate a database solution (mock paper 3 - Part a).

- Pupils will be able to plan a relational database for a given scenario;
- Pupils will be able to use a given relational database;
- Pupils will be able to create forms for inputting data;
- Pupils will be able to test and evaluate how well my database structure meets these requirements.

UDW 5

Purpose and Aim: To implement the use of social media in a business.

Week 29	Week 30	Week 31	Week 32	Week 33	Week 34	Week 35
RESPOND to formative comments made by my tutor.	Use a text editor to create the structure of the validation of your webpage.	RESPOND to formative comments made by my tutor.	Analyse how the principles of website design are used to produce creative, high performance websites which meet client requirements.	Evaluate how the principles of website design are used to produced creative, high performance websites which meet client requirements.	Produce a report based on the research for assessment criteria A.M1 B.A.D1.	

- Pupils will be able to plan a relational database for a given scenario;
- Pupils will be able to use a given relational database;
- Pupils will be able to test and evaluate how well my database structure meets these requirements;
- Pupils will be able to explain the key elements and principles of website design.

Year 12 - Unit 2

UDW 1

Purpose and Aim: To understand what project planning tools are used to plan a user interface and investigate the waterfall, agile and scrum development methodologies.

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Introduction to Qualification	Explain the different ways in which a business can use social media.		Produce a report based on the research for assessment criteria A.P1, B1.	Explain the audience profiles of different social media websites.	Produce a report based on the research for assessment criteria A.P2.	Assess the different ways in which a business can use social media to attract a target audience.

- Pupils will be able to explain the different ways in which a business can use social media.
- Pupils will be able to explain the audience profiles of different social media websites;
- Pupils will be able to assess the different ways in which a business can use social media to attract a target audience;
- Pupils will be able to produce a report based on the research for assessment criteria.

UDW 2

Purpose and Aim: To understand what project planning tools are used to plan a user interface and investigate the waterfall, agile and scrum development methodologies.

Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14
Produce a report based on the research for assessment criteria A.M1, B1.	Evaluate the business use of social media to interact with customers and promote products or services to a target audience.	Produce a report based on the research for assessment criteria A.D1.	Produce a plan to use social media in a business to meet its business requirements.	Produce a report based on the research for assessment criteria B.P3.	Produce a report based on the research for assessment criteria B.P4.	Review the plan with others in order to identify and inform improvements.

- Pupils will be able to understand what project planning tools are used to plan a user interface and investigate the waterfall, agile and scrum development methodologies;
- Pupils will be able to create a project proposal for their business;
- Pupils will be able to create an initial design for their business;
- Pupils will be able to develop my initial design using the given design principles.

UDW 3

Purpose and Aim: Understand the principles of website development.

Week 15	Week 16	Week 17	Week 18	Week 19	Week 20	Week 21
Develop my exam technique by answering exam questions on topics I have covered for revision and further understanding to prepare for my exam	Explain the benefits and constraints of using HTML and explain the purpose and requirements for websites.	Identify design ideas and prototyping/ create mood boards and storyboards	Revise learning and start to create a text file to identify and understand legal and ethical considerations	Develop skills in HTML and identify interactive components	Develop CSS and HTML styles and evaluate the website using user feedback	Develop CSS and HTML styles and evaluate the website using user feedback

- Pupils will be able to answer exam questions on related topics and begin to self/peermark work for further understanding;
- Pupils will be able to explain the purpose and principles of a website;
- Pupils will be able to explain the factors that affect website performance;
- Pupils will be able to identify media and objects in a website.

UDW 4

Purpose and Aim: To investigate website development principles and design and develop a website using scripting languages.

Week 22	Week 23	Week 24	Week 25	Week 26	Week 27	Week 28
Evaluate website design against by client requirements and evaluate the optimised website against client requirements	Respond to formative comments made by my tutor and implement recommended changes to enhance the usability of my website	Demonstrate individual responsibility, creativity and effective self management in the design, development and review of my website.RESPOND to formative comments made by my tutor for assessment criteria BC.D1.			Development of website and review aspects to enhance web performance	RESPOND to formative comments made by my tutor for assessment criteria BC.P7, C.P1, C.P4, C.M3 and BC.D2

- Pupils will be able to explain the factors that affect website performance;
- Pupils will be able to explain the purpose and principles of a website;
- Pupils will be able to manipulate a website using CSS for a given scenario;
- Pupils will be able to optimise their website.

UDW 5

Purpose and Aim: To review knowledge of unit 1 and 2 for exists if needed.

Week 29	Week 30	Week 31	Week 32	Week 33	Week 34	Week 35
Develop my exam technique by answering short and long style exam questions for unit 1 revisit.	Develop my exam technique by answering short and long style exam questions for unit 2 revisit.	Develop my exam technique by answering short and long style exam questions for unit 1 revisit.	Develop my exam technique by answering short and long style exam questions for unit 2 revisit.	**End of course**		

- Pupils will be able to explain what digital devices are;
- Pupils will be able to describe the features and functions of digital devices;
- Pupils will be able to identify different input and output devices;
- Pupils will be able to apply different devices to a range of scenarios.

UDW 2

Purpose and Aim: The concepts and implications of the use of, and relationships among, the devices that form IT systems.

Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14
Explain and describe different types/ uses/ features of networks and how data is transmitted.	Understand and investigate different ways in which data is transmitted and describe different types of latency/ bandwidth	Explain how online systems work and develop my exam technique for answering questions	Investigate and explain the uses of online communities/ develop exam technique	Answering and developing exam technique/ learning to answer exam questions and develop exam technique	Describe the features of online systems used to protect IT systems and explain the impact on legislation on IT systems	Develop exam technique by answering exam questions/ self marking to develop a deeper understanding of exam marking

- Pupils will be able to explain the impact of legislation on IT systems;
- Pupils will be able to develop their exam technique by answering exam style questions on networks and online communities;
- Pupils will be able to develop their exam technique by answering exam style questions on online communities;
- Pupils will be able to develop exam questions on related topics and begin to self/peermark work for further understanding.