

Scheme of Work 2020 - 2021

Subject: Computing

Year Group: Year 13

Specification: BTEC Computing - Unit 15 Website Development

| Lesson No | Topic & Objectives | Big Question – What will students learn? | Key Activities & Specialist Terminology (Do Now Task / Starter/Tasks/Plenary) | Planned Assessment | Homework or flipped learning resources DODDLE resources | Lit Num SMSC Codes |
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| 1 | A1 Purpose and principles of website products | What makes a good website | <ul style="list-style-type: none"> • Lead-in: Introduce the learner’s the unit and Learning Aim A • Tutor-led discussion: Ask the learners what they think makes a good website. Explain what the Principles of website design are • Independent learning activity: Looking at sample websites (provided by the teacher, and see if these websites contain/have the principles of website design – • Plenary: Learners to list what of the principles each website have/if any? | A.P1 Compare the principles of website design used in two websites, including their suitability for the intended audience and intended purpose. | Homework – Students to complete Skills for Learning Activity Sheet 1 | Lit Social So8 C3 Sp2 |

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| | | | | Completed Coursework | | Sp5 |
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| 2 | A1 Purpose and principles of website products | What makes a good website | <ul style="list-style-type: none"> • Lead-in: Discuss Principles of Website Design – see what students can remember from the previous session. • Tutor-led discussion: Explain the outline of P1 – students to look at one website and see if the website contains the principles of website design – students to write about the different aspects of the design (this is listed in the specification criteria) • Independent learning activity: Finding a website that they wish to write about students have to look at the website and see what principles of website design have been used – usability, media, creativity etc • Plenary: Learners to write about the purpose of the website and the design features | A.P1 Compare the principles of website design used in two websites, including their suitability for the intended audience and intended purpose. | Private Study Lesson – Students to Create a document to collate Keywords that you come across in this Unit – The students need to research a set of Keywords and add the definitions (this needs to be done in their own words) | Lit Social So8 C3 Sp2 Sp5 |
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| 3 | A1 Purpose and principles of website products | What makes a good website | <ul style="list-style-type: none"> • Lead-in: Discuss Principles of Website Design – see what students can remember from the previous session. • Tutor-led discussion: Explain the outline of P1 – students to look at another website and see if the website contains the principles of website design – students to write about the different aspects of the design (this is listed in the specification criteria) • Independent learning activity: Finding a website that they wish to write about students have to look at the website and see what principles of website design have been used – usability, media, creativity etc <p>Plenary: Learners to write about the purpose of the website and the design features</p> | A.P1 Compare the principles of website design used in two websites, including their suitability for the intended audience and intended purpose. | <p>Homework – Students to complete Skills for Learning Activity sheet 2</p> <p>Research the following keywords write the description in your Keyword document:</p> <ul style="list-style-type: none"> • Applet • Aesthetically pleasing • Ratio • <head> | <p>Lit</p> <p>Social</p> <p>So8</p> <p>C3</p> <p>Sp2</p> <p>Sp5</p> |
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| 4 | A2 Factors affecting website performance | | <ul style="list-style-type: none"> • Lead-in: Discuss what the word 'Analyse' means and how it can be used in context of the assignment. • Tutor-led discussion: To discuss what is 'Browser compliance', 'Server-side factors' & 'Client-side factors' • Paired activity: Students to work in pair discussing and finding out information regarding the terms discussed. • Independent learning activity: Learners are then to apply the new found knowledge to their assignment, looking at both websites and commenting on each with regards to the above criteria. | A.M1 Analyse how the principles of website design are used to produce creative, high-performance websites that meet client requirements. | Private Study Lesson – Research the following and provide a written response – The internet and paper-based documents are both good sources of information . What other sources can you identify? How reliable are these sources? | Lit Social So8 C3 Sp2 Sp5 |
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| 5 | A2 Factors affecting website performance | What makes a good website | <ul style="list-style-type: none"> • Lead-in: discuss 'Evaluation' and how this would apply to the assignment. • Tutor-led discussion: Tutor to discuss how the students should complete an evaluation of the two websites that they have been writing about. • Independent learning activity: Completion of the evaluation to the required standard | A.D1 Evaluate how the principles of website design are used to produce creative, high-performance websites which that client requirements | <p>Homework – Students to complete Skills for Learning Activity sheet 3</p> <p>Research – find examples of where the golden ratio of 1.62 appears within science (including astronomy) art (including painting), architecture and nature.</p> | <p>Lit</p> <p>Social</p> <p>So8</p> <p>C3</p> <p>Sp2</p> <p>Sp5</p> |
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| 6 | B1 Website design | What steps do you need to follow in order to create a website? | <ul style="list-style-type: none"> • Lead-in: Ask students how they think they would go about creating a website. • Tutor-led discussion: Discuss ideas around where you would start when designing and creating a website. • Paired activity: In pairs think about how you would go about creating a website for a client - constraints, benefits, nature of interactivity, complexity of the website • Independent learning activity: Look at assignment brief and see what the requirements of the 'client' are. From this link back to the principles of website design and begin to think about how this will impact the design, what needs to be taken in to account when beginning to design the website | B.P2 Produce designs for a website that meets client requirements | Private Study Lesson – Carry out research into quantum computing. What implications will quantum computing have for the way we buy and sell products and services online? | Lit Social So8 C3 Sp2 Sp5 |

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| 7 | B1 Website design | <p>What steps do you need to follow in order to create a website?</p> | <ul style="list-style-type: none"> • Lead-in: Recap on previous sessions, on the constraints, benefits, nature of interactivity and complexity of website designs • Independent learning activity: Continue with assignment, Understanding the steps involved in developing a design for a client website. Understand the problem to be solved. What constraints are there? The complexity of the website. | <p>B.P2 Produce designs for a website that meets client requirements</p> <p>Completed Coursework</p> | <p>Homework – Students to complete Skills for Learning Activity sheet 4 & 5</p> <p>Research the following keywords and add them to their Keyword list:</p> <ul style="list-style-type: none"> • Compression • Goes live – what does this mean | <p>Lit</p> <p>Social</p> <p>So8</p> <p>C3</p> <p>Sp2</p> <p>Sp5</p> |
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| | | | | | <ul style="list-style-type: none"> • Interactive website • Transport Layer Security (TLS) | |
| 8 | B1 Website design | What is Search Engine Optimisation – and how is it used effectively? | <ul style="list-style-type: none"> • Tutor-led discussion: Go through the website design proposal. Discuss Search Engine Optimisation – and different compatibilities with websites to mobile/tablets as well as computers • Independent learning activity: Create initial design ideas/prototypes. Mood boards, wireframe, site maps to be created. | B.P3 Review the website design proposals with others to identify and inform improvements. Completed Coursework | Private study lesson – Students to carry on how typography is connected to disabilities such as dyslexia. When building a website, what font would you use and why? Consider what else you could | Lit Social So8 C3 Sp2 Sp5 |

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| | | | | | <p>do as a website developer to ensure that all users can access your website regardless of disability?</p> <p>Research the theories behind different fonts and dyslexia?</p> | |
| 9 | B1 Website design | Why is the Copyright, Designs and Patents Act and the Data Protection Act important to | <ul style="list-style-type: none"> • Lead-in: Lead a group discussion on what the following diagrammatic illustrations are: Mood boards, Storyboards, Wireframe and a Site Map – to ensure that the previous lesson’s points have been met. • Tutor-led discussion: Discuss aspects of law that need to be considered when creating a website, such as Copyright, | B.M2 Justify the design decisions, explaining how they will meet the user's needs and be fit for purpose. | Homework – Students to complete Skills for Learning Activity sheet 6 & 7 | <p>Lit</p> <p>Social</p> <p>So8</p> |

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| | | <p>consider when creating a website?</p> | <p>Designs and Patents Act 1988 and the Data Protection Act 1998.</p> <ul style="list-style-type: none"> • Independent learning activity: To continue to work on the assignment | | <p>Research the following keywords and add them to their Keyword list:</p> <ul style="list-style-type: none"> • Attribute s • Algorith m • Quantita tive questioni ng • Qualitati ve questioni ng | <p>C3 Sp2 Sp5</p> |
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| 10 | B2 Common tools and techniques used to produce websites | What suitable tools to use to meet the requirements of the client? | <ul style="list-style-type: none"> • Lead-in: Lead a group discussion on the common tools and techniques used when creating a website. • Tutor-led discussion: Create list on the whiteboard, with students' input. Discuss ideas as you go, this will give the students a good overview of the tools and techniques. • Independent learning activity: Students to use the information generated on the whiteboard to help them with their designs • Plenary – Consolidate the lesson with a brief recap of the learning objectives | Assignment work | Private Study Lesson – Research the differences between fibre to the home (FTTH) and fibre to the building (FTTB). How do these technologies work? What advantages and disadvantages of each? | Lit Social So8 C3 Sp2 Sp5 |
| 11 | C: Develop a website to meet client requirements | What is the difference between different | <ul style="list-style-type: none"> • Lead-in: Recap on the previous session – tools and techniques of website design. • Tutor-led discussion: On client-side scripting, other types of web-scripting | C.P4 Produce a website for an intended | Homework – Students to complete Skills for | Lit Social |

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| | C1 Client-side scripting languages | web-scripting | <p>such as JavaScript – show differences between the different languages</p> <ul style="list-style-type: none"> • Independent learning activity: Students to put the knowledge in to the assignment | audience and purpose | <p>Learning Activity sheet 8 & 9</p> <p>Research the following keywords and add them to their Keyword list:</p> <ul style="list-style-type: none"> • World Wide Web Consortium (W3C) • Plug-in • Validation • Syntax | <p>So8</p> <p>C3</p> <p>Sp2</p> <p>Sp5</p> |
| 12 | C1 Client-side scripting languages | Is the website functional? | <ul style="list-style-type: none"> • Lead-in: Recap on the previous session. • Tutor-led discussion: Discuss what functions should be tested, in a test plan | C.P5 Test the website for functionality, | <p>Private Study Lesson – Research the terms</p> | <p>Lit</p> <p>Social</p> |

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| | | | <ul style="list-style-type: none"> Independent learning activity: Create a test plan, carry out the test on the website that they have created. | compatibility and usability. | server-side and client-side scripting. What is the difference between the two techniques ? Draw a diagram that represents how these two techniques work. Look back at Factors affecting website performance to get you started. | So8 C3 Sp2 Sp5 |
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| 13 | C1 Client-side scripting languages | What question to be included in a questionnaire? | <ul style="list-style-type: none"> • Lead-in: Discuss questionnaires, discuss what would need to be included. • Tutor-led discussion: Group discussion on what questions should be included on a questionnaire that is reviewing the website. • Independent learning activity: Students to create a questionnaire as part of the testing of the website for its functionality. • Plenary: Group discussion on questions that they have included in theirs – students can share ideas | C.P6 Review the extent to which the website meets client requirements | <p>Homework – Students to complete Skills for Learning Activity sheet 10 & 11</p> <p>Research the following keywords and add them to their Keyword list:</p> <ul style="list-style-type: none"> • Dot Operator • Array • Object • Responsive Web Design (RWD) | <p>Lit</p> <p>Social</p> <p>So8</p> <p>C3</p> <p>Sp2</p> <p>Sp5</p> |
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| 14 | C2 Website development | How can students optimise the website to meet the client's requirement ? | <ul style="list-style-type: none"> • Lead-in: Recap on previous lesson on questionnaires • Independent learning activity: Reflect on feedback from completed questionnaires. Are there any changes to be made to the website? Does it meet the client's requirements? • Plenary: Get students to think about how they would carry out an evaluation on the designs of the website | C.M3 Optimise a website to meet client requirements | Private Study Lesson – Research what are the components involved in server-side scripting? Research, compare and contrast 'PHP' with 'ASP'. Which do you believe is best suited for server-side processing ? | Lit Social So8 C3 Sp2 Sp5 |
| 15 | C3 Website review | | <ul style="list-style-type: none"> • Lead-in: Recap on how to carry out an evaluation on the designs of their websites, recap on the legislation governing website designs | BC.D2 Evaluate the design and optimised website | Homework – Students to complete | Lit |

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| | | | <ul style="list-style-type: none"> Independent learning activity: Compare the website that they have created and with another similar website – note the comparisons – check the website is suitable – does it meet the requirements set out by the client – does the website include search engine optimisation? Does the website adhere to the governing legislation. | <p>against client requirements.</p> <p>BC.D3 Demonstrate individual responsibility, creativity and effective self-management in the design, development and review of a website.</p> | <p>Skills for Learning Activity sheet 12 & 13</p> <p>Research the following keywords and add them to their Keyword list:</p> <ul style="list-style-type: none"> Pixel perfect Brand Demographics Direct advertising Indirect advertising | <p>Social</p> <p>So8</p> <p>C3</p> <p>Sp2</p> <p>Sp5</p> |
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| 16 | C3 Website review | <p>Does the website meet the client requirements?</p> | <ul style="list-style-type: none"> • Lead-in: Recap on how to carry out an evaluation on the designs of their websites, recap on the legislation governing website designs • Independent learning activity: Compare the website that they have created and with another similar website – note the comparisons – check the website is suitable – does it meet the requirements set out by the client – does the website include search engine optimisation? <p>Does the website adhere to the governing legislation?</p> | <p>BC.D2 Evaluate the design and optimised website against client requirements.</p> <p>BC.D3 Demonstrate individual responsibility, creativity and effective self-management in the design, development and review of a website.</p> | <p>Private Study Lesson – Research the differences between HTML 4.01 and HTML5. What are the new tags which have been brought in, which have been removed and what are the other differences? What do you feel the challenges are of</p> | <p>Lit</p> <p>Social</p> <p>So8</p> <p>C3</p> <p>Sp2</p> <p>Sp5</p> |
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| | | | | | using HTML5? | |
| 17 | C5 Skills, knowledge and behaviours | How to respond effectively to feedback on the designs | <ul style="list-style-type: none"> • Lead-in: Discuss how to evaluate, how to respond to feedback from others • Tutor-led discussion: Lead the students in a discussion about the importance of planning effectively, completing tasks in an appropriate timescale. Discuss how to use the feedback provided and how to respond effectively and professionally • Independent learning activity: Finish the evaluation of the website design, within this evaluation they have to explain how they have been creative, what tools and techniques they have used. How they have managed their time effectively to help them complete this task. Most importantly they have to discuss and evaluate whether they have met the design brief from the client's requirements. | <p>BC.D2 Evaluate the design and optimised website against client requirements.</p> <p>BC.D3 Demonstrate individual responsibility, creativity and effective self-management in the design, development and review of a website.</p> | | <p>Lit</p> <p>Social</p> <p>So8</p> <p>C3</p> <p>Sp2</p> <p>Sp5</p> |