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| **Bridgewater High Key Stage 3 Curriculum Map** |
| Subject – Year 7 computer science |



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| **Intent:6 key principles** | **Implementation** | **Autumn Term**  | **Spring Term**  | **Summer Term** |
| **Clarity around knowledge** | **Theme/Topic** | **eSafety**Introduction to eSafety | **Programming**Computational Thinking | **Impact of Technology**Product Development |
| **Key Knowledge & Concepts** | Cyberbullying, Online friendships | Binary, boolean logic, how computers work, computational thinking | Goods v Services, Aims, Branding, Data Representation |
| **Clarity around Sequencing** | **Main links across the curriculum** | eSafety 8.1 and 9.1 unit delivered in Autumn term across KS3 | Programming 8.2 and 9.2 delivered in the spring term | Impact of Technology unit 8.3 and 9.3 delivered in summer term |
| **Cross – curricular / Authentic Links** | **Year 7 – Technology Autumn 1** - Use criteria to support the completion of a successful creative design task.Understand how to analyse an existing product.  | **Year 7 & 8 – Maths Autumn 1** - Sequences. **Summer 1** - Conversion of number. **Spring 1** Applications of number, addition & subtraction, multiplication & division, order of operations. **Year 8 – Maths Autumn 1** - Sequences. **Autumn 2 -** Representing data.  | **Autumn2 – Geog –** Interpreting data, **Spring 2 Food**- food labels **Spring2 Food** Food packaging**Summer 2** - Food - Branding Cheese,Science - Data Interpretation, **Tech** – developing a brief |
| **Vocabulary / Literacy** | **Literacy** | **Reading** | * Cyberbullying

<https://www.thinkuknow.co.uk/> <https://www.childline.org.uk/info-advice/bullying-abuse-safety/types-bullying/bullying-cyberbullying/>* Reporting

<https://www.ceop.police.uk/Safety-Centre/> | * Digital devices

<https://www.bbc.co.uk/bitesize/guides/zxb72hv/revision/1>* The CPU

<https://www.bbc.co.uk/bitesize/guides/zws8d2p/revision/1>* Computational Thinking

<https://www.bbc.co.uk/bitesize/topics/z7tp34j> | * Aims

<https://www.bbc.co.uk/bitesize/guides/z9gcd2p/revision/1>* Branding

<https://www.bbc.co.uk/bitesize/guides/z26btv4/revision/4>* Data representation

<https://www.bbc.co.uk/bitesize/guides/zpfdwmn/revision/2> |
| **Ext. Writing** | Website content on cyberbullying, online friendships, help and advice | Identifying and applying knowledge of different devices to real life scenarios. | Product Development activity – writing aims and descriptions of the product and its purpose |
| **Key****Vocabulary** | Cyberbullying, online friendships, eSafety, hyperlinks, navigation, purpose, target audience. | Input, process, output, storage, binary, CPU, instructions, data, denary, computational thinking, abstraction, decomposition, pattern recognition, algorithms. | Goods, service, branding, aims, data representation, colour depth, pixels  |
| **Memory & Cognition** | **Retrieval Practice: Focus a*nd Activity*** | **Start** | Quick fire questions – reinforce key learning from last lesson with 3 or 4 questions. | Quick fire questions – reinforce key learning from last lesson with 3 or 4 questions. | Quick fire questions – reinforce key learning from last lesson with 3 or 4 questions. |
| **On going** | Questioning – to check and share knowledge and understanding, misconceptions. | Questioning – to check and share knowledge and understanding, misconceptions. | Questioning – to check and share knowledge and understanding, misconceptions. |
| **End** | Final Thought – reflection back on the lesson and links to home learning. Homework tasks | Final Thought – reflection back on the lesson and links to home learning. | Final Thought – reflection back on the lesson and links to home learning. |
| **Assessment** | **Summative****Assessment** | WorkbookWebsiteMid/End of unit test | WorkbookWebsiteMid/ End of unit test | WorkbookWebsiteMid/ End of unit test |
| **Possible misconceptions** | eSafety relates to just social media issues rather than those that are more widely | Confusion with number systems.Input devices being something you put into the computer. | Goods v Services, Aims – financial and non-financial, Bit depth/Colour depth |
| **Aspiring, inspiring and Real** | **Links to real world (Inc. SMSC / PD curricula)** | Responsibility and respectSafety and risk awarenessModern worldHealth and WellbeingResilience | Modern worldResilienceAspiration | Modern worldHealth and WellbeingAspiration |



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| **Bridgewater High Key Stage 3 Curriculum Map** |
| Subject – Year 8 |
| **Intent:6 key principles** | **Implementation** | **Autumn Term**  | **Spring Term** | **Summer Term** |
| **Clarity around knowledge** | **Theme/Topic** | **eSafety**Cyber security | **Programming**Intro to Python | **Impact of Technology**Internet of Things |
| **Key Knowledge & Concepts** | Email scams, hacking, protecting data, identifity theft, HTML notepad  | Variables, data types, selection, algorithms | Hardware/software, Connectivity, Communication, Market Segmentation, Promotion, |
| **Clarity around Sequencing** | **Main links across the curriculum** | eSafety 7.1 and 9.1 unit delivered in Autumn term across KS3 | Programming 7.2 and 9.2 delivered in the spring term | Impact of Technology unit 7.3 and 9.3 delivered in summer term |
| **Cross – curricular / Authentic Links** | **Year 7 – Technology Autumn 1** - Use criteria to support the completion of a successful creative design task.Understand how to analyse an existing product.  | **Year 7 & 8 – Maths Autumn 1** - Sequences. **Summer 1** - Conversion of number. **Spring 1** Applications of number, addition & subtraction, multiplication & division, order of operations. **Year 8 – Maths Autumn 1** - Sequences. **Autumn 2 -** Representing data.  | **Autumn2 – Geog –** Interpreting data, **Spring 2 Food**- food labels **Spring2 Food** Food packaging**Summer 2** - Food - Branding Cheese,Science - Data Interpretation, **Tech** – developing a brief |
| **Vocabulary / Literacy** | **Literacy** | **Reading** | Cyber Security <https://sway.office.com/mAu1G36z46Ix7pok?ref=Link> | * Introduction to programming

<https://www.bbc.co.uk/bitesize/guides/zts8d2p/revision/1>* Python resources

<https://www.tecoed.co.uk/learn-python.html><https://blog.withcode.uk/create-with-code-getting-started/python-for-beginners-tutorials/> | <https://www.wired.co.uk/article/internet-of-things-what-is-explained-iot> |
| **Ext. Writing** | Website Content relating to cyber security  | Writing and creating programs | Explore and explain the issues relating to the sending of information over Internet connections |
| **Key****Vocabulary** | Hacking, Phishing, Protecting Data, Identity Theft | Python, interactive mode, script mode, syntax, variables, data types, programming constructs, sequence, selection, iteration, algorithms, debug, error, flow diagram | Sensor, Wi-Fi, Bluetooth, Connection, Cloud storage, Target Market, Promotion |
| **Memory & Cognition** | **Retrieval Practice: Focus a*nd Activity*** | **Start** | Quick fire questions – reinforce key learning from last lesson with 3 or 4 questions. | Quick fire questions – reinforce key learning from last lesson with 3 or 4 questions | Quick fire questions – reinforce key learning from last lesson with 3 or 4 questions. |
| **On going** | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. |
| **End** | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment |
| **Assessment** | **Summative****Assessment** | WorkbookProduct – WebsiteMid/End of unit test | WorkbookProduct – WebsiteMid/End of unit test | Workbook,  Product – Advertisement, Mid/End of unit test |
| **Possible misconceptions** | Cyber security relating to cyber bullying, hacking is not stealing information. | Syntax of programming languages. American spelling for programming. | Brands v Technology e.g. iCloud v Cloud storage |
| **Aspiring, inspiring and Real** | **Links to real world (Inc. SMSC / PD curricula)** | Responsibility and respectSafety and risk awarenessModern worldHealth and WellbeingResilience | Modern worldResilienceAspiration | Responsibility and respectSafety and risk awarenessModern worldHealth and WellbeingResilienceAspiration |

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| **Bridgewater High Key Stage 3 Curriculum Map** |
| Subject – Year 9 |
| **Intent:6 key principles** | **Implementation** | **Autumn Term**  | **Spring Term**  | **Summer Term**  |
| **Clarity around knowledge** | **Theme/Topic** | **eSafety**Social media and the law | **Programming**Python next steps | **Impact of Technology**Artificial Intelligence |
| **Key Knowledge & Concepts** | Social media, sharing videos and images, the law, protecting yourself | Loops, lists, procedures and function. | Branding, technology requirements, connectivity, communication, finance |
| **Clarity around Sequencing** | **Main links across the curriculum** | eSafety 7.1 and 8.1 unit delivered in Autumn term across KS3 | Programming 7.2 and 8.2 delivered in the spring term | Impact of Technology unit 8.3 and 7.3 delivered in summer term |
| **Cross – curricular / Authentic Links** | **Technology Autumn 1** - Use criteria to support the completion of a successful creative design task.Understand how to analyse an existing product.  | **Year 7 & 8 – Maths Autumn 1** - Sequences. **Summer 1** - Conversion of number. **Spring 1** Applications of number, addition & subtraction, multiplication & division, order of operations. **Year 8 – Maths Autumn 1** - Sequences. **Autumn 2 -** Representing data.  | **Autumn2 – Geog –** Interpreting data, **Spring 2 Food**- food labels **Spring2 Food** Food packaging **Summer 2** - Food - Branding **Science** - Data Interpretation, **Tech** – developing a brief **Graphics** summer term 2 Y9 Designing and making for a specific target market - modelling |
| **Vocabulary / Literacy** | **Literacy** | **Reading** | <https://www.thinkuknow.co.uk/> <https://www.childline.org.uk/info-advice/bullying-abuse-safety/types-bullying/bullying-cyberbullying/><https://www.ceop.police.uk/Safety-Centre/> | Python Challenge! PM Heathcote PG Online bookLearning to Program in Python PM Heathcote PG Onine book | How technology is giving more life to festivals. <https://www.uktech.news/news/technology-trends-give-festivals-life-beyond-physical-now-20160727>The future tech of music festivals <https://www.festivalinsights.com/2017/08/future-tech-music-festivals/> |
| **Ext. Writing** | Email to a friend explaining the support services available to them.Digital Footprint – online behaviour, impact and consequences. | Writing and creating programs. Explanation of algorithms. | Music festival proposal including a discussion of security issues and ways to resolve them. |
| **Key****Vocabulary** | Sexting, privacy, social media, content, legislation, copyright | Python, data types, selection, iteration, loops, while, for, list, arrays, variable, procedure, function, parameters, algorithm, pseudocode, debug, syntax, errors | Ad hoc networks, Wi-fi, hotspot, PAN, WAN, infrastructure, fibre-optics, blackspots, RFID, NFC, Sensors, digital divide |
| **Memory & Cognition** | **Retrieval Practice: Focus a*nd Activity*** | **Start** | Quick fire questions – reinforce key learning from last lesson with 3 or 4 questions. | Quick fire questions – reinforce key learning from last lesson with 3 or 4 questions. | Quick fire questions – reinforce key learning from last lesson with 3 or 4 questions. |
| **On going** | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. |
| **End** | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment |
| **Assessment** | **Summative****Assessment** | WorkbookProduct – WebsiteMid/End of unit test | WorkbookProduct – Python programsMid/End of unit test | WorkbookMid/End of unit test |
| **Possible misconceptions** | Legislation – the law is their to protect children not to criminalise them. The law applies to adults over the age of 18 but children should be aware that it is a criminal offence to send such images.  | Syntax of programming languages. | Type of networks – PAN, LAN, WAN, Ad hoc |
| **Aspiring, inspiring and Real** | **Links to real world (Inc. SMSC / PD curricula)** | Responsibility and respectSafety and risk awarenessModern worldHealth and WellbeingResilience | Modern worldResilienceAspiration | Responsibility and respectSafety and risk awarenessModern worldHealth and WellbeingResilienceAspiration |



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| **Bridgewater High Key Stage 4 Curriculum Map** |
| Subject – Computer Science Year 10 |



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| **Intent:6 key principles** | **Implementation** | **Autumn Term 1** | **Autumn Term 2** | **Spring Term 1** | **Spring Term 2** | **Summer Term 1** | **Summer Term 2** |
| **Clarity around knowledge** | **Theme/Topic** | 1.1 system architecture1.2 Memory and storage | 1.2 memory and storage2.1 Algorithms | 2.1 Algorithms1.3 Networks | 1.3 Networks | 2.2 Programming fundamentals | 2.2 Programming fundamentals |
| **Key Knowledge & Concepts** | Architecture, performance, embedded systems, primary storage, secondary storage | Data storage, compression, computational thinking, design algorithms | Networks and topologies, Wired and wireless networks,  | Networks and topologies, protocols, layers | Variables, assignment, constants, selection, iteration, sequencing, lists and procedures | Additional programming techniques |
| **Clarity around Sequencing** | **Main links across the curriculum** | KS3 - Programming / Impact of technology units  | KS3 - Programming / Impact of technology units | KS3 - Programming / Impact of technology units | KS3 - Programming / Impact of technology units | KS3 - Programming / Impact of technology units | KS3 - Programming / Impact of technology units |
| **Cross – curricular / Authentic Links** | **Year 8 – Science Spring 1** - Frequencies of sound waves, measured in hertz (Hz). | **Science Summer 2 –** Apply mathematical concepts and calculate results; present data using appropriate methods.**Year 8 – Maths Autumn 2** - Representing data. |  |  |  |  |
| **Vocabulary / Literacy** | **Literacy** | **Reading** | GCSE Computer Science for OCR Student Book Waller D, July 2020. | GCSE Computer Science for OCR Student Book Waller D, July 2020. | GCSE Computer Science for OCR Student Book Waller D, July 2020. | GCSE Computer Science for OCR Student Book Waller D, July 2020. | GCSE Computer Science for OCR Student Book Waller D, July 2020. | GCSE Computer Science for OCR Student Book Waller D, July 2020. |
| **Ext. Writing** | Define, describe, compare, explain questioning | Define, describe, compare, explain questioning | Define, describe, compare, explain questioning | Define, describe, compare, explain questioning | Define, describe, compare, explain questioning | Define, describe, compare, explain questioning |
| **Key****Vocabulary** | Fetch-decode-execute, CPU, ALU,CU, MAR, MDR, PC, Cache, Registers, Accumulator, Core, RAM, ROM, Optical, Magnetic, Solid State | Capacity, Speed, Portability, Durability, Reliability, Cost, Bit, Nibble, Byte, KB, MB, GB, TB, PB, ASCII, Unicode, Binary, Metadata, Compression, Lossy, Lossless, | Algorithm, Abstraction, Decomposition, Pseudocode, Flowcharts, Trace tables, Binary/Linear search, bubble sort, merge sort, insertion sort, | LAN, WAN, Client server, peer to peer, WAP, Router, Switch, NIC, Transmission media, DNS, Hosting, Cloud, topology, star, mesh, Ethernet, WiFi, Bluetooth, Encryption, Protocols e.g. TCP/IP | Variable, constant, operator, inputs, outputs, assignment, sequence, selection, interation, count loop, condition controlled loops,  | Boolean, integer, real, string, casting, records, table, fields, SQL, Random, Sub program – procedure, function |
| **Memory & Cognition** | **Retrieval Practice: Focus a*nd Activity*** | **Start** | Knowledge retrieval starters, question quadrants | Knowledge retrieval starters, question quadrants | Knowledge retrieval starters, question quadrants | Knowledge retrieval starters, question quadrants | Knowledge retrieval starters, question quadrants | Knowledge retrieval starters, question quadrants |
| **On going** | Topic workbooks with activities and questions.Questioning | Topic workbooks with activities and questions.Questioning | Topic workbooks with activities and questions.Questioning | Topic workbooks with activities and questions.Questioning | Topic workbooks with activities and questions.Questioning | Topic workbooks with activities and questions.Questioning |
| **End** | End of unit topic tests for Component 1 and Component 2.Final thought. | End of unit topic tests for Component 1 and Component 2.Final thought. | End of unit topic tests for Component 1 and Component 2.Final thought. | End of unit topic tests for Component 1 and Component 2.Final thought. | End of unit topic tests for Component 1 and Component 2.Final thought. | End of unit topic tests for Component 1 and Component 2.Final thought. |
| **Assessment** | **Summative****Assessment** | End of unit topic testsMini mock (every 3/4 topics) | End of unit topic testsMini mock (every 3/4 topics) | End of unit topic testsMini mock (every 3/4 topics) | End of unit topic testsMini mock (every 3/4 topics) | End of unit topic testsMini mock (every 3/4 topics) | End of unit topic testsMini mock (every 3/4 topics) |
| **Possible misconceptions** | Location and use Cache v RAM and Virtual memory | The difference between abstraction and decomposition | Switch v Router | The roles of specific layers. | Syntax and logic errors | Syntax and logic errors |
| **Aspiring, inspiring and Real** | **Links to real world (Inc. SMSC / PD curricula)** | Modern worldResilience | Modern worldResilienceAspiration | Responsibility and respectModern worldResilienceAspirationSafety and risk awareness | Responsibility and respectSafety and risk awarenessModern worldResilienceAspiration | ResilienceAspirationModern world | ResilienceAspirationModern world |
| **Bridgewater High Key Stage 4 Curriculum Map** |
| Subject – Computer Science Year 11 |



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| **Intent:6 key principles** | **Implementation** | **Autumn Term 1** | **Autumn Term 2** | **Spring Term 1** | **Spring Term 2** | **Summer Term 1** | **Summer Term 2** |
| **Clarity around knowledge** | **Theme/Topic** | 1.4 Threats to computer systems 1.5 software 1.6 Ethical and legal | 1.6 Ethical and legal, 2.3 Producing robust programs | 2.4 Boolean logic, 2.5 Languages and IDE | Programming skills, Revision | Practical programming revision, Theory revision | Theory revision |
| **Key Knowledge & Concepts** | Identifying and preventing vulnerabilities, Operating systems, utility software. | Cultural and environmental impacts, Defensive design, testing | Boolean logic, languages – machine code, IDE – translators, compilers and assemblers | Component 2 – algorithms, programming techniques | Component 1 – Computer Systems, Component 2 – algorithms, programming techniques | Component 1 – Computer Systems, Component 2 – algorithms, programming techniques |
| **Clarity around Sequencing** | **Main links across the curriculum** | KS3 - Programming / Impact of technology /eSafety units | KS3 - Programming / Impact of technology /eSafety units | KS3 - Programming / Impact of technology /eSafety units | KS3 - Programming / Impact of technology /eSafety units | KS3 - Programming / Impact of technology /eSafety units | KS3 - Programming / Impact of technology /eSafety units |
| **Cross – curricular / Authentic Links** | **Year 9 - Dance Spring 1** - Education and social/ political issues.  | **Year 9 - Dance Spring 1** - Education and social/ political issues. | **Year 7 - Maths Spring 1** Applications of number, order of operations.**Year 8 – Maths Spring 1 –** Generate sequences using more complex rules, e.g. with brackets. **Spring 2 –** Decimals. Use the order of operations. | **KS3 maths** multiplication & division, order of operations.present data using appropriate methods.**S**equences using more complex rules, e.g. with brackets. Decimals. Use the order of operations. | **KS3 maths** multiplication & division, order of operations.present data using appropriate methods.**S**equences using more complex rules, e.g. with brackets. Decimals. Use the order of operations. |  |
| **Vocabulary / Literacy** | **Literacy** | **Reading** | GCSE Computer Science for OCR Student Book Waller D, July 2020. | GCSE Computer Science for OCR Student Book Waller D, July 2020. | GCSE Computer Science for OCR Student Book Waller D, July 2020. | GCSE Computer Science for OCR Student Book Waller D, July 2020. | GCSE Computer Science for OCR Student Book Waller D, July 2020. | GCSE Computer Science for OCR Student Book Waller D, July 2020. |
| **Ext. Writing** | Extend answer techniques | Extend answer techniques | Define, describe, compare, explain questioning | - | - | - |
| **Key****Vocabulary** | o Malware o Social engineering o Brute-force o Denial of service o Data interception o SQL injection o Penetration testing o Anti-malware o Firewalls o operating systems o User interface o management multitasking o Peripheral  |  Ethical o Legal o Cultural o Environmental o Data Protection Act 2018 o Computer Misuse Act 1990 o Copyright Designs and Patents Act 1988  | logic AND, OR and NOT ¨ Truth tables ¨ Integrated Development Environment (IDE): o Editors o Error diagnostics o Run-time environment o Translators o interpreters  | - | - | - |
| **Memory & Cognition** | **Retrieval Practice: Focus a*nd Activity*** | **Start** | Knowledge retrieval starters, question quadrants | Knowledge retrieval starters, question quadrants | Knowledge retrieval starters, question quadrants | Knowledge retrieval starters, question quadrants | Knowledge retrieval starters, question quadrants | Knowledge retrieval starters, question quadrants |
| **On going** | Topic workbooks with activities and questions.Questioning | Topic workbooks with activities and questions.Questioning | Topic workbooks with activities and questions.Questioning | Topic workbooks with activities and questions.Questioning | Topic workbooks with activities and questions.Questioning | Topic workbooks with activities and questions.Questioning |
| **End** | End of unit topic tests for Component 1 and Component 2.Final thought. | End of unit topic tests for Component 1 and Component 2.Final thought. | End of unit topic tests for Component 1 and Component 2.Final thought. | End of unit topic tests for Component 1 and Component 2.Final thought. | End of unit topic tests for Component 1 and Component 2.Final thought. | End of unit topic tests for Component 1 and Component 2.Final thought. |
| **Assessment** | **Summative****Assessment** | End of unit tests, mocks, mini mocks | End of unit tests, mocks, mini mocks | End of unit tests, mocks, mini mocks | End of unit tests, mocks, mini mocks | End of unit tests, mocks, mini mocks | End of unit tests, mocks, mini mocks |
| **Possible misconceptions** | Confusion between ethical and legal | Validation techniques | Confusion between translator and interpreter | Syntax and logic errors | Syntax and logic errors | Syntax and logic errors |
| **Aspiring, inspiring and Real** | **Links to real world (Inc. SMSC / PD curricula)** | Responsibility and respectSafety and risk awarenessModern worldHealth and WellbeingResilienceAspiration | Responsibility and respectSafety and risk awarenessModern worldHealth and WellbeingResilienceAspiration | ResilienceModern world | ResilienceAspirationModern world | ResilienceAspirationModern world | Aspiration |

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| **Bridgewater High Key Stage 4 Curriculum Map** |
| Subject – Year 10 BTEC Enterprise |



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| **Intent:6 key principles** | **Implementation** | **Autumn Term 1** | **Autumn Term 2** | **Spring Term 1** | **Spring Term 2** | **Summer Term 1** | **Summer Term 2** |
| **Clarity around knowledge** | **Theme/Topic** | Component 2 - Planning for and Pitching an Enterprise Activity Learning Aim A | Component 2 - Planning for and Pitching an Enterprise Activity Learning Aim B | Component 2 - Planning for and Pitching an Enterprise Activity Learning Aim C and Component 3 Aim A Finance and promotion | Component 3 Finance and promotion Learning Aim B | Component 3 Finance and promotion Learning Aim C | **Component 1 Exploring Enterprises Learning Aim A** |
| **Key Knowledge & Concepts** | Resources, Aims, Target market, products and services, risk assessment, communication, financial documents. | Pitching, presentation skills, communication skills, pitch preparation | Review and feedback Advertisng, message, medium, sales promotion, direct marketing, establishing relationships, B2B, B2C.  | Financial documents, statement of financial position, profitability, liquidity rations | Cashflow, breakeven, sources of business finance | What is an enterprise, SMEs, the purpose of enterprise, entrepreneurs |
| **Clarity around Sequencing** | **Main links across the curriculum** | 7.3, 8.3, 9.3 Impact of Technology – KS3 | 7.3, 8.3, 9.3 Impact of Technology – KS3 | 7.3, 8.3, 9.3 Impact of Technology – KS3 | 7.3, 8.3, 9.3 Impact of Technology – KS3 | 7.3, 8.3, 9.3 Impact of Technology – KS3 | 7.3, 8.3, 9.3 Impact of Technology – KS3 |
| **Cross – curricular / Authentic Links** | **Year 10 – Autumn 1/2/ 3** **Art –** Presentations, Dev. Ideas, finaldes**.**  | **Year 10 - Summer2 Drama – Role Play****Graphics** summer term 2 Y9 Designing and making for a specific target market **Product design** summer term – branding, logo, pitching | **Year 9 - Dance Spring 1** - How to sell a product. Planning an idea. Problem solving, independent learning, critical thinking. | KS3 maths | KS3 maths | **Year 7 – geography autumn term 2 –** Science Autumn term 1(recording results and displaying as graphs)Science Summer term 2(tables and graphs)Tech autumn term 2 – create innovative  |
| **Vocabulary / Literacy** | **Literacy** | **Reading** | BTEC Tech Award Enterprise Student by H Coupland-Smith 2018 | BTEC Tech Award Enterprise Student by H Coupland-Smith 2018 | BTEC Tech Award Enterprise Student by H Coupland-Smith 2018 | BTEC Tech Award Enterprise Student by H Coupland-Smith 2018 | BTEC Tech Award Enterprise Student by H Coupland-Smith 2018 | BTEC Tech Award Enterprise Student by H Coupland-Smith 2018 |
| **Ext. Writing** | Report writing format coursework | Report writing format coursework | Report writing format coursework | Report writing format coursework | Report writing format coursework | Report writing format coursework |
| **Key****Vocabulary** | Aims, target market, risk assessment, contingency | Pitch, clarity, tone, projection | Synopsis, critical thinking, review | breakeven, assets, profitability, liquidity | Cashflow, forecasting, inflow, outflow | Enterprise, Entrepreneur, Characteristics |
| **Memory & Cognition** | **Retrieval Practice: Focus a*nd Activity*** | **Start** | Knowledge retrievalQuestioningProgress Check/to do | Knowledge retrievalQuestioningProgress Check/to do | Knowledge retrievalQuestioningProgress Check/to do | Knowledge retrievalQuestioningProgress Check/to do | Knowledge retrievalQuestioningProgress Check/to do | Knowledge retrievalQuestioningProgress Check/to do |
| **On going** | Progress CheckQuestioning | Progress CheckQuestioning | Progress CheckQuestioning | Progress CheckQuestioning | Progress CheckQuestioning | Progress CheckQuestioning |
| **End** | Final thought | Final thought | Final thought | Final thought | Final thought | Final thought |
| **Assessment** | **Summative****Assessment** | Learning Aim A Submission | Learning Aim B Submission | Learning Aim C Submission | Practice Exam questions for Component 3.External Assessment Jan / June | Practice Exam questions for Component 3.External Assessment Jan / June | Learning Aim A submission |
| **Possible misconceptions** | Aims – financial/non-financial. Resource – human, physical financial | Delivery of pitch using PPT reading/presenting | Evaluation – equally weighted argument | Promotional mix v Sales promotion | Inflows v Outflows | SMEs characteristics – micro, small medium |
| **Aspiring, inspiring and Real** | **Links to real world (Inc. SMSC / PD curricula)** | Responsibility and respectSafety and risk awarenessModern worldHealth and WellbeingResilienceAspiration | Responsibility and respectModern worldResilienceAspiration | Responsibility and respectModern worldResilienceAspiration | AspirationResponsibility and respectModern worldSafety and risk awareness | AspirationResponsibility and respectModern worldSafety and risk awareness | Responsibility and respectModern worldResilienceAspiration |

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| **Bridgewater High Key Stage 4 Curriculum Map** |
| Subject – Year 11 BTEC Enterprise |



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| **Intent:6 key principles** | **Implementation** | **Autumn Term 1** | **Autumn Term 2** | **Spring Term 1** | **Spring Term 2** | **Summer Term 1** | **Summer Term 2** |
| **Clarity around knowledge** | **Theme/Topic** | **Component 1 Learning B – Exploring Enterprise** | **Component 1 Learning C – Exploring Enterprise** | **Component 3 Preparation for resit** | **Component 3 Preparation for resit** | **Component 3 Recap and revision** | **Component 3 Recap and revision** |
| **Key Knowledge & Concepts** | Market research, understanding competitors | Internal and External factors, situational analysis, measuring the success of a SME | Financial records, promotional methods, target market | Financial records, promotional methods, target market | Financial records, promotional methods, target market | Financial records, promotional methods, target market |
| **Clarity around Sequencing** | **Main links across the curriculum** | 7.3, 8.3, 9.3 Impact of Technology – KS3 | 7.3, 8.3, 9.3 Impact of Technology – KS3 | 7.3, 8.3, 9.3 Impact of Technology – KS3 | 7.3, 8.3, 9.3 Impact of Technology – KS3 | 7.3, 8.3, 9.3 Impact of Technology – KS3 | 7.3, 8.3, 9.3 Impact of Technology – KS3 |
| **Cross – curricular / Authentic Links** | **Year 8 – Maths Summer 2** - The data handling cycle, understand and use primary and secondary sources of data. Collect data including questionnaires. |  | **Year 9 - Dance Spring 1** - How to sell a product. Planning an idea. Problem solving, independent learning, critical thinking.**Drama spring term 2 Y8 -** advertising | **Year 7 -** **Year 8 – Drama Spring 2** - Advert.**Year 9 - Dance Spring 1** - How to sell a product. Planning an idea. Problem solving, independent learning, critical thinking. | **Year 9 - Dance Spring 1** - How to sell a product. Planning an idea. Problem solving, independent learning, critical thinking. | **Year 9 - Dance Spring 1** - How to sell a product. Planning an idea. Problem solving, independent learning, critical thinking. |
| **Vocabulary / Literacy** | **Literacy** | **Reading** | BTEC Tech Award Enterprise Student by H Coupland-Smith 2018 | BTEC Tech Award Enterprise Student by H Coupland-Smith 2018 | BTEC Tech Award Enterprise Student by H Coupland-Smith 2018 | BTEC Tech Award Enterprise Student by H Coupland-Smith 2018 | BTEC Tech Award Enterprise Student by H Coupland-Smith 2018 | BTEC Tech Award Enterprise Student by H Coupland-Smith 2018 |
| **Ext. Writing** | Report writing format coursework | Report writing format coursework | Report writing format coursework | Report writing format coursework | Report writing format coursework | Report writing format coursework |
| **Key****Vocabulary** | Competitors, market research, customer need | Internal/External factors, situational analysis,  | See Y10 | See Y10 | See Y10 | See Y10 |
| **Memory & Cognition** | **Retrieval Practice: Focus a*nd Activity*** | **Start** | Knowledge retrievalQuestioningProgress Check/to do | Knowledge retrievalQuestioningProgress Check/to do | Knowledge retrievalQuestioningProgress Check/to do | Knowledge retrievalQuestioningProgress Check/to do | Knowledge retrievalQuestioningProgress Check/to do | Knowledge retrievalQuestioningProgress Check/to do |
| **On going** | Progress CheckQuestioning | Progress CheckQuestioning | Progress CheckQuestioning | Progress CheckQuestioning | Progress CheckQuestioning | Progress CheckQuestioning |
| **End** | Final thought | Final thought | Final thought | Final thought | Final thought | Final thought |
| **Assessment** | **Summative****Assessment** | Learning Aim B submission | Learning Aim C submission | Component 3 Practice papers and External Exam Jan/June | Component 3 Practice papers and External Exam Jan/June | Component 3 Practice papers and External Exam Jan/June | Component 3 Practice papers and External Exam Jan/June |
| **Possible misconceptions** | Quantitative / qualitative, primary v secondary | SWOT and PEST | See Year 10 | See Year 10 | See Year 10 | See Year 10 |
| **Aspiring, inspiring and Real** | **Links to real world (Inc. SMSC / PD curricula)** | Modern worldResilienceAspiration | Modern worldResilienceAspirationSafety and risk awareness | Modern worldResilienceAspiration | Modern worldResilienceAspiration | Modern worldResilienceAspiration | Modern worldResilienceAspiration |

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| **Bridgewater High Key Stage 3 Curriculum Map** |
| Subject – Year 10 BTEC Digital IT |



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| **Intent:6 key principles** | **Implementation** | **Autumn Term 1** | **Autumn Term 2** | **Spring Term 1** | **Spring Term 2** | **Summer Term 1** | **Summer Term 2** |
| **Clarity around knowledge** | **Theme/Topic** | **Component 1 User Interfaces Learning Aim A** | **Component 1 User Interfaces Learning Aim B** | **Component 1 User Interfaces Learning Aim C** | **Component 3 Effective Digital Working practices Aim A** | **Component 3 Effective Digital Working practices Aim B** | **Component 3 Effective Digital Working practices Aim B** |
| **Key Knowledge & Concepts** | User accessibility, design principles, hardware and software | Project planning, constraints and risks, timescales, design specification, storyboards | Refining and reviewing a user interface | Communication technologies, cloud technology, managing teams, accessibility and inclusivity | Why are systems attacked, internal an external threats, user access, security policies, security parameters | Data level protection: firewalls and anti-virus, passwords, actions to take after an attack |
| **Clarity around Sequencing** | **Main links across the curriculum** |  KS3 7/8/9.1 .3 units of work | KS3 7/8/9.1 7/8.3 units of work | KS3 7/8/9.1 .3 units of work | KS3 7/8/9.1 .3 units of work | KS3 7/8/9.1 .3 units of work | KS3 KS3 7/8/9.1 .3 units of work |
| **Cross – curricular / Authentic Links** | **Year 10 - Graphics** Spring Term 1 Designing and making principles **Year 9** - **Graphics** summer term 2 Y9 Designing and making for a specific target market **Dance Spring 1** - Planning an idea. Problem solving, independent learning, critical thinking. | **Year 7 - Food Autumn 1** - Use criteria to support the completion of a successful creative design task.**Year 8 – Tech Autum 1 + 2** - Construct scale models that meet given design criteria.**Year 9 -Dance Spring 1** - Planning an idea. Problem solving, independent learning, critical thinking.**Year 10 – Graphics** Spring Term 1 Designing and making principles **Year 11 –DT Autumn term Designing and Making** | **Year 7 - Food Autumn 1** - Use criteria to support the completion of a successful creative design task.**Year 8 – Tech Autum 1 + 2** - Construct scale models that meet given design criteria.**Year 9 - Dance Spring 1** - Planning an idea. Problem solving, independent learning, critical thinking.**Year 10 -** **Year 11 -** |  | RS Ethics |  |
| **Vocabulary / Literacy** | **Literacy** | **Reading** | BTEC Tech Award Digital Information Technologyby David Waller Aug 2018 | BTEC Tech Award Digital Information Technologyby David Waller Aug 2018 | BTEC Tech Award Digital Information Technologyby David Waller Aug 2018 | BTEC Tech Award Digital Information Technologyby David Waller Aug 2018 | BTEC Tech Award Digital Information Technologyby David Waller Aug 2018 | BTEC Tech Award Digital Information Technologyby David Waller Aug 2018 |
| **Ext. Writing** | Coursework write up | Coursework write up | Coursework write up | Coursework write up | Coursework write up | Coursework write up |
| **Key****Vocabulary** | GUI/WIMPs sensors menu/forms. embedded systems. performance/response time ease of use user requirements accessibility operating systems/platforms emerging technologiesinnovations  | GUI/WIMPs sensors menu/forms. embedded systems. performance/response time ease of use user requirements accessibility operating systems/platforms emerging technologiesinnovations  | GUI/WIMPs sensors menu/forms. embedded systems. performance/response time ease of use user requirements accessibility operating systems/platforms emerging technologiesinnovations  | up ad hoc networks, tethering, rural, developed vs developing countries, infrastructure, blackspots, cloud storage,  | synchronisation, scalability, collaboration tools/features, disaster recovery, stakeholders, | industrial espionage , worms, botnet, rootkit, Trojan, ransomware, spyware, denial of service, phishing , pharming, social engineering, shoulder surfing, ‘man-in-the-middle’ attacks. |
| **Memory & Cognition** | **Retrieval Practice: Focus a*nd Activity*** | **Start** | Quick fire questions, coursework misconception questioning  | Quick fire questions, coursework misconception questioning | Quick fire questions, coursework misconception questioning | Quick fire questions, coursework misconception questioning | Quick fire questions, coursework misconception questioning | Quick fire questions, coursework misconception questioning |
| **On going** | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. |
| **End** | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment |
| **Assessment** | **Summative****Assessment** | Learning Aim A submission | Learning Aim B submission | Learning Aim C submission | Component 3 Practice papers and External Exam Jan/June | Component 3 Practice papers and External Exam Jan/June | Component 3 Practice papers and External Exam Jan/June |
| **Possible misconceptions** | Differences between GUI/WIMP/Menu | Chart types – Gantt, PERT, Critical Path | Evaluation – balanced argument of postives/negatives | Ad hoc networks and local area networks | What is a stakeholder | Phishing, pharming and social engineering |
| **Aspiring, inspiring and Real** | **Links to real world (Inc. SMSC / PD curricula)** | Responsibility and respectSafety and risk awarenessModern world | Responsibility and respectSafety and risk awarenessModern world | Safety and risk awarenessModern worldResilienceAspiration | Responsibility and respectSafety and risk awarenessModern worldHealth and Wellbeing | Responsibility and respectSafety and risk awarenessModern worldHealth and WellbeingResilienceAspiration | Responsibility and respectSafety and risk awarenessModern worldHealth and WellbeingResilienceAspiration |

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| **Bridgewater High Key Stage 3 Curriculum Map** |
| Subject – Year 11 BTEC Digtal IT |



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| **Intent:6 key principles** | **Implementation** | **Autumn Term 1** | **Autumn Term 2** | **Spring Term 1** | **Spring Term 2** | **Summer Term 1** | **Summer Term 2** |
| **Clarity around knowledge** | **Theme/Topic** | **Component 3 Learning Aim C** | **Component 3 Learning Aim C** | **Component 2 Learning Aim A**  | **Component 2 Learning Aim B** | **Component 2 Learning Aim C** | **Component 3 resit and revision** |
| **Key Knowledge & Concepts** | Equal access to information and services, data protection, legal requirements | The impact of technology, intellectual property , technology and the environment  | Data and information, collecting data, modelling, why quality is important. | Showing data summaries, presentation methods, conditional formatting, drawing conclusions. | Drawing conclusions, making recommendations, how presentations affect understanding | Revision of component 3 topics in preparation resit exams. |
| **Clarity around Sequencing** | **Main links across the curriculum** | KS3 .1 .3 units of work | KS3 .1 .3 units of work | KS3 .1 .3 units of work | KS3 .1 .3 units of work | KS3 .1 .3 units of work | KS3 .1 .3 units of work |
| **Cross – curricular / Authentic Links** | **Year 10 – RS Summer** reasons for crime, breaking the law, different types of crime**Year 11 - CS Autumn** Term Threats and Ethical/Legal | **Year 10 - RS Summer** reasons for crime**Year 11 - CS Ethical and legal impacts** | **Year 8 - Tech Autum 1 + 2** - Construct scale models that meet given design criteria.**Year 10 - Maths Summer Term 1 Delving into data –** Collecting, representing and interpreting data | **Tech Autum 1 + 2** - Construct scale models that meet given design criteria. | **Year 7 - Food Autumn 1** - Use criteria to support the completion of a successful creative design task.**Year 11 - Tech Autum 1 + 2** - Construct scale models that meet given design criteria. | - |
| **Vocabulary / Literacy** | **Literacy** | **Reading** | BTEC Tech Award Digital Information Technologyby David Waller Aug 2018 | BTEC Tech Award Digital Information Technologyby David Waller Aug 2018 | BTEC Tech Award Digital Information Technologyby David Waller Aug 2018 | BTEC Tech Award Digital Information Technologyby David Waller Aug 2018 | BTEC Tech Award Digital Information Technologyby David Waller Aug 2018 | BTEC Tech Award Digital Information Technologyby David Waller Aug 2018 |
| **Ext. Writing** |  |  |  |  |  |  |
| **Key****Vocabulary** | industrial espionage , worms, botnet, rootkit, Trojan, ransomware, spyware, denial of service, phishing , pharming, social engineering, shoulder surfing, ‘man-in-the-middle’ attacks. | industrial espionage , worms, botnet, rootkit, Trojan, ransomware, spyware, denial of service, phishing , pharming, social engineering, shoulder surfing, ‘man-in-the-middle’ attacks. | Text, numbers, tables, graphs/charts, infographics. Validation range check, type check, lookup check, data type check, presence check, length check, Verification, proofreading, double entry, reliability, Data collection, primary, secondary, big data | Data modelling , dashboard, data manipulation , formulae, add, divide, subtract, multiply, IF, WHATIF, SUMIF, VLOOKUP, HLOOKUP, COUNTBLANK, COUNTIF, NOT, AND, OR, sorting, absolute and relative cell referencing, macros, data validation | presentation methods, form controls, dropdown menus, spinners, tick boxes, radio buttons o graphs/charts, including dynamic charts/graphs, pivot tables, conditional formatting, data/range.  |  |
| **Memory & Cognition** | **Retrieval Practice: Focus a*nd Activity*** | **Start** | Quick fire questions, coursework misconception questioning | Quick fire questions, coursework misconception questioning | Quick fire questions, coursework misconception questioning | Quick fire questions, coursework misconception questioning | Quick fire questions, coursework misconception questioning | Quick fire questions, coursework misconception questioning |
| **On going** | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. | Progress Pit Stop – to check and share knowledge and understanding, misconceptions. Key Questions – to encourage deeper thinking and application. |
| **End** | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment | Final Thought – reflection back on the lesson and links to home learning. End of unit assessment |
| **Assessment** | **Summative****Assessment** | Component 3 Practice papers and External Exam Jan/June | Component 3 Practice papers and External Exam Jan/June | Learning Aim A submission | Learning Aim B submission | Learning Aim C submission | Component 3 Practice papers and External Exam June |
| **Possible misconceptions** | Legal v Ethical | Intellectual property | Data v Information | Function selection | Using data to draw conclusions | - |
| **Aspiring, inspiring and Real** | **Links to real world (Inc. SMSC / PD curricula)** | Responsibility and respectSafety and risk awarenessModern worldHealth and WellbeingResilienceAspiration | Responsibility and respectSafety and risk awarenessModern worldHealth and WellbeingResilienceAspiration | Modern worldResilienceAspiration | Modern worldResilienceAspiration | Modern worldResilienceAspiration |  |