



Department: Computing & Business

Curriculum Intent Statement

Our Curriculum Vision & Purpose

Our programmes of study will equip pupils to use computational thinking and creativity to understand and change the world. Pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Powerful Knowledge

Powerful Knowledge in Computing is based on the ability to abstract and decompose a problem to produce a solution through thorough investigation. Pupils have opportunities throughout KS3 to produce robust and considered solutions to problems posed in class. Alongside this, it is important pupils develop an understanding of how the hardware within a computer functions.

Curriculum Features

All pupil's have differing ICT abilities, particularly when some children have access to ICT equipment at home, while others do not. We provide suitable learning opportunities for all pupils by matching the challenge of the task to the ability and experience of the pupil. We achieve this in a variety of ways, by:

- Setting common tasks which are open-ended and can have a variety of responses.
- Setting tasks of increasing difficulty (not all pupil's complete all tasks).
- Grouping pupils by ability in the room and setting different tasks to each ability group.
- Providing resources of different complexity depending on the ability of the pupil.

Activities in Computing give children of all abilities the opportunity to develop their skills, knowledge and understanding. Schemes of learning offer increasing challenge for the children as they move up through school so that individual learners are able to make progress in the acquisition of concepts, knowledge and skills at the rate most appropriate to their ability and stage of development.

Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The KS3 curriculum is designed to ensure students studying GCSE Computer Science have a grounding in the fundamental concepts covered at KS4. Over the 3 years, pupils learn to program starting with block-based languages before progressing to High-Level Language. The development of programming skills is also built into physical Computing tasks such as coding LED lights via a microbit. They also study the 'big picture', looking at Hardware and Algorithms, giving them the skills to access later topics such as Binary and Hexadecimal where students study the mathematical makeup of machines.



Continuous Development Cycle

Curriculum Knowledge & Assessment Overview 2021-23

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| | Term / Duration | Topic & Main Content Overview | Assessment Task/Focus & Objectives | Powerful Knowledge for Year 7 (referenced to topic as appropriate) |
|------------------------|--|--|---|--|
| Year 7 Scheme Overview | Term 1 7 Weeks Max. No. Lessons: 7 | Python Programming & Scratch Pupils develop the use a text based programming language and key programming terms including variables, sequence and selection including IF and IF..ELSE. They are encouraged to incorporate iteration with the use of FOR and WHILE loops. Their code will accept user input and use this input whilst using a range of debugging skills to check for errors in their code and correct them. | Formative Assessment Check of 'selection' coding to check mid-point progress and ensure syntax used correctly and commenting of good quality. Summative Assessment. Annotated final coded program using range of skills learnt from correct terms, explaining input and outputs and how they might be altered. End of unit test of the key theory learnt including MCQ's. | Pupils will know how to create a solution to a given scenario that makes use of variables, sequence and iteration. They will be able to debug and know how to check for errors throughout their program. |
| | Term 2 8 Weeks Max. No. Lessons: 8 | Representing Data & Spreadsheet Modelling Pupils learn how to enter data into a spreadsheet and use formatting tools to make it easier to read. They will create and use formulae and functions to carry out calculations. Pupils will carry out tests on their formulae to ensure they are working accurately in addition to learning how to use data in a spreadsheet to create charts. | Formative Assessment Development of spreadsheet to contain data and appropriate formatting. Summative Assessment. The final spreadsheet. Final modelling task to check pupils' understanding of how to use spreadsheets to answer questions End of unit test to demonstrate understanding of a range of data types and their uses including MCQ's. | Pupils will know how to enter data and use cell references to model a given scenario. They will know a range of formula including Sum, Average, Min and Max. |
| | Term 3 6 Weeks Max. No. Lessons: 6 | Computational Thinking & Flow Charts Pupils learn how to use a range of flowchart elements to create simulations of control systems. In addition they will use looping in order to make control systems run continuously and sub-routines in order to separate repeated instructions from main systems. | Formative Assessment Screenshots of flowcharts created so far at the mid-way point of the unit. Summative Assessment Screenshots of flowcharts completed to demonstrate application of skills. End of unit test to demonstrate factual knowledge learnt including MCQ's. | Pupils will know how to use variables, actions, sub-routines (functions) and the process of breaking down problems into step by step solutions. |

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Assessment Format to follow whole-school expectations (MCQs for Content Knowledge & Understanding, GCSE-style Qs. for Application of Skills).



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| <p>Term 4 7 Weeks Max. No. Lessons: 7</p> | <p>Binary Numbers Pupils learn how to converting binary to decimal and decimal to binary. In addition, they will learn how to carry out simple binary arithmetic including addition and multiplication.</p> | <p>Formative Assessment Workbook completed with binary to denary conversion and arithmetic. Summative Assessment End of unit test to demonstrate factual knowledge learnt including MCQ's</p> | <p>Pupils will be able to convert between denary and binary units and carryout simple addition of binary units.</p> |
| <p>Term 5 4 Weeks Max. No. Lessons: 4</p> | <p>Hardware & Computer Systems Pupils will learn the technical knowledge of computing architecture and what networks are and how they work.</p> | <p>Formative Assessment Lesson research tasks to be recorded. Summative Assessment. Completed research tasks. End of unit test to demonstrate understanding of the key theory learnt including MCQ's.</p> | <p>Pupils will know the main components that make up a computer system and confidently identify a range hardware and software used in these systems.</p> |
| <p>Term 6 7 Weeks Max. No. Lessons: 7</p> | <p>Online Safety Pupils explore the issues linked to sharing personal data online and the biggest risks to individuals and organisations. Pupils will utilise documentation skills to present results of research for this unit of work.</p> | <p>Formative Assessment/ Check of mid-point documentation progress to ensure notes are thorough and meaningful. Summative Assessment End of unit test to demonstrate understanding of the key theory learnt including MCQ's.</p> | <p>Pupils will know a range of dangers that affect their age group and identify strategies to report and prevent them becoming a victim of this cybercrime.</p> |

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| | Term / Duration | Topic & Main Content Overview | Assessment Task/Focus & Objectives | Powerful Knowledge for Year 8 (referenced to topic as appropriate) |
|------------------------|--|--|--|---|
| Year 8 Scheme Overview | Term 1 7 Weeks Max. No. Lessons: 7 | <p>Python Numbers Pupils embed and strengthen their use of this industry standard text based programming language. They will use code commenting to show understanding of what is created.</p> | <p>Formative Assessment 'Selection' coding check for mid-point progress and ensure syntax used correctly. Summative Assessment Final coded program using a range of skills learnt in addition to end of unit test to demonstrate understanding of the key theory learnt including MCQ's.</p> | <p>Pupils will know how to create a solution to a given scenario that makes use of variables, sequence and iteration. They will be able to debug and know how to check for errors throughout their program. They will know how to incorporate mathematical concepts into their final program.</p> |
| | Term 2 8 Weeks Max. No. Lessons: 8 | <p>HTML Pupils use HTML tags to create a range of website content including <i>Text; Images; Hyperlinks; Tables; Changing formatting for style and size;</i> In addition they use CSS to create a stylesheet template for use on a website.</p> | <p>Formative Assessment Initial HTML code created – to check for errors / misunderstandings. Summative Assessment Final range of code developed for a website in addition to End of unit test to demonstrate understanding of the key theory learnt including MCQ's.</p> | <p>Pupils will know the similarities and differences between the types of programming used so far and HTML scripting language. They will know how to use a range of tags within their website including image and hyperlinks.</p> |
| | Term 3 6 Weeks Max. No. Lessons: 6 | <p>Pseudocode Pupils embed and strengthen their understanding of programming terms by planning their programs in advance using pseudocode. Pupils will debug their plan using a trace table to check for errors in code.</p> | <p>Formative Assessment Check lesson task sheets for development of understanding and use of key terms. Summative Assessment End of unit test to demonstrate understanding of the key theory learnt including MCQ's.</p> | <p>Pupils will know the exam board pseudocode prescribe command words and how to format their final plan in keeping with industry standard expectations.</p> |

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| <p>Term 4 7 Weeks Max. No. Lessons: 7</p> | <p>Computer Networks and Internet Pupils will be able to identify a range of hardware required when setting up a network showing understanding between hub, switch and router. They will also be able to explain the difference between Wi-Fi, Ethernet cable and fibre optic cable used to transmit data.</p> | <p>Formative Assessment Check lesson task sheets for development of understanding and use of key terms. Summative Assessment End of unit test to demonstrate understanding of the key theory learnt including MCQ's.</p> | <p>Pupils will demonstrate knowledge of a range of networks including LAN, WAN and PAN. They will know the range of network topologies available to creators of networks and be able to draw star, bus, ring and mesh system.</p> |
| <p>Term 5 4 Weeks Max. No. Lessons: 4</p> | <p>Data Representation Pupils will embed their binary knowledge from year 7 and be able to convert decimal numbers to binary and back again, convert decimal numbers to hexadecimal and back again. Understand what ASCII is & how images are stored on a computer as binary.</p> | <p>Formative Assessment Check of mid-point homework to carry out conversions. Summative Assessment End of unit test to demonstrate understanding of the key theory learnt including MCQ's on conversions.</p> | <p>Pupils will use their knowledge of binary and decimal conversions and acquire how to apply this to image and sound files.</p> |
| <p>Term 6 7 Weeks Max. No. Lessons: 7</p> | <p>Microbit Pupils have to opportunity to use Microsoft block programming to create code for the Microbit. They will write and test code in the editor and use a compiler to download and run code on the Microbit.</p> | <p>Formative Assessment Code created using lesson tutorials. Summative Assessment. Final range of code created using development of skills, and end of unit test to demonstrate understanding of the key theory learnt including MCQ's.</p> | <p>Pupils will know how to use the IDL online to create a range of programs and use a compiler to transfer their work onto the microbit remotely.</p> |

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| | Term / Duration | Topic & Main Content Overview | Assessment Task/Focus & Objectives | Powerful Knowledge for Year 9 (referenced to topic as appropriate) |
|------------------------|--|--|--|---|
| Year 9 Scheme Overview | Term 1 7 Weeks Max. No. Lessons: 7 | Python drawing Consolidate understanding of text based programming language and key programming terms including variable , sequence , selection and iteration to make code repeat using forever and repeat loops in order to produce complete artwork. | Formative Assessment Check lesson task sheets for development of understanding and use of key terms. Summative Assessment Pseudocode to plan a final program. Final coded program using range of skills learnt. | Pupils will know how to create a solution to a given scenario and be able to debug and know how to check for errors throughout their program. |
| | Term 2 8 Weeks Max. No. Lessons: 8 | Boolean Logic, logic gates, truth tables. Hero Challenge Task Pupils will be able to create truth table for AND, NOT and OR for a given scenario. | Formative Assessment Check lesson task sheets for development of understanding and use of key terms. Summative Assessment End of unit test of key theory learnt including MCQ's. | Pupils will know the difference between AND, NOT and OR logic and how used in computer programming. |
| | Term 3 6 Weeks Max. No. Lessons: 6 | Spreadsheet Quiz Pupils will learn to use advanced techniques in a spreadsheet to create a use quiz including: <i>Data validation for drop-down lists, VLOOKUP to auto-populate cells, Macros for a sequence of events via button-click, IF statements to auto-populate cells, Settings and protection features to customize how the spreadsheet looks and what can and cannot be edited.</i> | Formative Assessment Mid-point check of progress with spreadsheet and accuracy of skills used. Summative Assessment Final spreadsheet quiz. Written evaluation of the final solution. End of unit test to demonstrate understanding of the key theory learnt including MCQ's. | Pupils will know how to enter data and use cell references to model a given scenario. They will know a range of formula including VLOOKUP and IF statements. |
| | Term 4 7 Weeks Max. No. Lessons: 7 | Online Safety & Cyber Security Pupils explore the cyber world we live in and the biggest risks to individuals and organisations. They will learn how to identify types of cyber threats | Formative Assessment Check of mid-point documentation progress to ensure notes are thorough and meaningful. | Pupils will know a range of current safety issues affecting society and will be able to recall a number of current |

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| | and how these can become reality. They will explore a range of job roles and personnel who work in the cyber security industry linked to careers pathways. | Summative Assessment End of unit test to demonstrate understanding of the key theory learnt including MCQ's. | cyber security breach in the UK and worldwide. |
| Term 5 4 Weeks Max. No. Lessons: 4 | Sorting & Searching Algorithms Pupils will be able to identify three sorting algorithms used in computing namely bubble sort, bucket sort and insertion sort. They will independently research quick sort and selection sort and attempt to explain how each works. Finally they will extend their learning by attempting these sorts as well as a merge sort. | Formative Assessment Check of mid-point documentation progress to ensure notes are thorough and meaningful. Summative Assessment End of unit test to demonstrate understanding of the key theory learnt including MCQ's. | Pupils will know the difference between bubble sort, bucket sort and insertion sort. They will know which algorithm to use in a given scenario. |
| Term 6 7 Weeks Max. No. Lessons: 7 | Animal Shelter Project Pupils will plan the purpose, audience, content and navigation for a range of digital products. They will use digital literacy skill including word processing, spreadsheet modelling and presentation packages to produce a set of professional business documents to use in wider society. Finally, they will test and evaluate the finished product for how well it works and its suitability for the planned purpose and audience. | Formative Assessment Check of quality of finished products throughout. Summative Assessment Assessment of final digital products and quality of their review and evaluation. | Pupils will know how to plan, test and evaluate their range of products to ensure they meet the needs and expectation of their target audience. |

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| Year 10 Scheme Overview Computer Science | Term / Duration | Topic & Main Content Overview | Assessment Task/Focus & Objectives | Powerful Knowledge for Year 10 (referenced to topic as appropriate) |
|--|--|--|---|---|
| | Term 1 7 Weeks Max. No. Lessons: 20 | Algorithms Pupils will be able to read, interpret and create a range of algorithms making use of sequence, selection and interaction Pupils will use a mixture of pseudocode, flowchart and written description techniques when formulating their own algorithms. | Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions. | Pupils will know how to represent their algorithms using flowchart, pseudocode and written description prior to converting into a texted based programming language. |
| | Term 2 8 Weeks Max. No. Lessons: 24 | Develop code Pupils will develop ability to write text based programs using Python. They will make use of variable, constants, subprograms and indentation to improve the efficiency and readability of their program. They will structure their data used in the program making use of records, one and two-dimensional arrays and use both local and global variables. | Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions. | Pupils will know how to create a solution to a given scenario that makes use of variables, sequence and iteration. They will be able to debug and know how to check for errors throughout their program. |
| | Term 3 6 Weeks Max. No. Lessons: 18 | Data Pupils will learn how binary is used to represent numbers, text, sound and graphics in computers. They will be able to convert between binary and denary, hexadecimal and carryout binary arithmetic. | Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions. | Pupils will be able to convert between denary and binary units and carryout a range of calculations including addition, multiplication and division of binary units. |

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| <p>Term 4 7 Weeks Max. No. Lessons:20</p> | <p>Data representation Pupils will understand how computers encode characters using ASCII and how bitmap images are represented in binary focusing on pixels, resolution and colour depth. An understanding of data encryption is and why it is required as well as the use of databases in everyday life to store data and develop an appreciation will be explored.</p> | <p>Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions.</p> | <p>Pupils will use their knowledge of binary and decimal conversions and acquire how to apply this to image and sound files.</p> |
| <p>Term 5 4 Weeks Max. No. Lessons: 12</p> | <p>Machines and computational modelling Pupils will acquire an understanding of all the components that make up a computer system including CPU, main memory, secondary storage as well as input and output devices. In addition, they explore a range of storage options including solid state, magnetic, optical and cloud and be able to select the appropriate method for a given scenario.</p> | <p>Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions.</p> | <p>Pupils will know the main components that make up a computer system and confidently identify a range hardware used in these systems.</p> |
| <p>Term 6 7 Weeks Max. No. Lessons: 20</p> | <p>Machines and computational modelling Pupils review a range of software options for a computer system including operating system , utility software , anti-virus and anti-spyware to aid cyber. They will also understand the difference between high-level and low-level programming languages as well as the role of assembler, compiler and an interpreter software.</p> | <p>Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions.</p> | <p>Pupils will know the main components that make up a computer system and confidently identify a range software used in these systems.</p> |

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| Year 11 Scheme Overview Computer Science | Term / Duration | Topic & Main Content Overview | Assessment Task/Focus & Objectives | Powerful Knowledge for Year 11 (referenced to topic as appropriate) |
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| | Term 1 7 Weeks Max. No. Lessons: 20 | Programming Project Pupils have to undertake a 20 hour programming project whereby they develop their own computer program. They will develop skills in analysing and decomposing a given scenario. They will use pseudocode, flow chart or written description to create an algorithm to help them create their final program. | Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions. | Pupils will know how to plan, test and evaluate their program to ensure it meets the needs and expectation of their target audience. |
| | Term 2 8 Weeks Max. No. Lessons: 24 | Networks Pupils explore how computers are connected looking at different models including LAN, WAN, client-server and peer-to-peer as well as the physical material required to set up a network (wired v's wireless). Pupils will also review protocols such as TCP/IP and HTTPS . | Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions. | Pupils will demonstrate knowledge of a range of networks including LAN, WAN and PAN. They will know the range of network topologies available to creators of networks and be able to draw star, bus, ring and mesh system. |
| | Term 3 6 Weeks Max. No. Lessons: 18 | Network security and the internet / world wide web Pupils revisit cyber security however focusing on keeping a given network secure. They will be able to identify a range of strategies employed by IT companies to ensure network security including code reviews, modular testing and ethical hacking. | Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions. | Pupils will know a range of current safety issues affecting society and will be able to recall a number of current cyber security breach in the UK and worldwide. |

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| <p>Term 4 7 Weeks Max. No. Lessons:20</p> | <p>Emerging trends, issues and impact Pupils will appreciate the impact technology has on the environment in terms of health, energy use and resources. They will look at how the impact can be both negative and positive and answer extended exam questions on these issues. In addition pupils review the ethical impact the use of technology has on our society including and professionalism.</p> | <p>Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions.</p> | <p>Pupils will know a range of current issues including digital exclusion and environmental issues affecting our society.</p> |
| <p>Term 5 4 Weeks Max. No. Lessons: 12</p> | <p>Revision and Consolidation of learning. Consolidate all learning in preparation for summer examination and revisit 'hot spots' of underperformance personal to the individual pupil – based on items identified in each end of unit test to date.</p> | <p>Formative Assessment Check quality of exam technique questions throughout the unit, MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions.</p> | <p>Pupils will develop knowledge of all units addressed over the two year course and know how to use competently exam technique both exam papers.</p> |
| <p>Term 6 7 Weeks Max. No. Lessons: 20</p> | <p>GCSE Exams</p> | | |



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| Year 10 Scheme Overview Business | Term / Duration | Topic & Main Content Overview | Assessment Task/Focus & Objectives | Powerful Knowledge for Year 10 (referenced to topic as appropriate) |
|----------------------------------|--|--|---|---|
| | Term 1 7 Weeks Max. No. Lessons: 20 | Enterprise & Entrepreneurship Pupils will be able to identify how new business ideas come about, focusing on changes in technology, consumers want and products and services becoming obsolete. They will be able to discuss the impact of risk and reward on business activity and appreciate the elements involved in creating good and services that meet customer needs. | Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions. | Know the risk and rewards of creating a business and understand the importance of meeting customer needs to the survival of a business. |
| | Term 2 8 Weeks Max. No. Lessons: 24 | Spotting a Business opportunity Pupils explore customer needs and understand the impact this has sales and survival of the business. They will learn how to carryout market research to identify gaps in the market, reduce business rick and inform decisions as well as knowing the difference between qualitative and quantitative data and the role of social media playing in collecting market research data. | Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions. | Pupils will know how to use research and market mapping to identify gaps in a market for a business idea. They will know how to segment a market and how this is used to create a USP. |
| | Term 3 6 Weeks Max. No. Lessons: 18 | Putting a Business Idea into practice Pupils will be able to distinguish between aims and objectives including financial and non-financial aims and objectives. They will learn a range of financial calculations including revenue, fixed and variable costs, total costs, profit and loss, interest, break-even level of output, margin of safety in order to keep a business solvent. | Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions. | Pupils know a range of accounting formula including profit, break even and cashflow. |

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| | Finally, pupils will be able to identify a range of sources of finance including short-term and long term including crowd funding. | | |
| Term 4 7 Weeks Max. No. Lessons:20 | Making the business effective Pupils will understand the difference between limited and unlimited liability and review a range of ownership options including sole trader, partnership, private limited and franchise. In addition, pupils explore each element of the marketing mix including price, product, promotion, place and create a business plan to help minimise risk and obtaining additional finance. | Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions. | Pupils will know the range of ownership options available and be able to select an appropriate method for a given scenario. |
| Term 5 4 Weeks Max. No. Lessons: 12 | Understanding external influences Pupils will be able to a range of stakeholders of a businesses and how they are affected by business. They will understand how e-commerce, social media, digital communication and payment systems are used in business and appreciate legislation business have to follow. | Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions. | Pupils will be able to identify the impact on business success due to changes in economic climate, exchange rates and interest rates. |
| Term 6 7 Weeks Max. No. Lessons: 20 | Understanding external influences Pupils explore the economic climate on businesses including unemployment, changing levels of consumer income, inflation, changes in interest rates, government taxation and changes in exchange rates. Remaining time is spent revisiting 'hot spots' of underperformance personal to the individual pupil – based on items identified in each end of unit test to date. | Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions. | Pupils will develop knowledge of all units addressed this year and know how to use competently exam technique for all 3 sections of 1BS01 paper. |

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|----------------------------------|--|---|---|--|
| Year 11 Scheme Overview Business | Term 1 7 Weeks Max. No. Lessons: 20 | Growing the Business Pupils will appreciate methods of growth including internal (organic) and external (inorganic). They will explore a range of sources of finance for growing and established businesses including internal and external sources. An understanding of globalisation in terms of imports, exports, barriers to international trade including tariff and trade blocs will be developed. Finally pupils will be able to discuss the impact of ethical and environmental considerations on businesses. | Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions. | Pupils know the difference between organic and inorganic growth and can justify the type of ownership a growing business should adopt. |
| | Term 2 8 Weeks Max. No. Lessons: 24 | Making Marketing Decisions Pupils will be able to explain the design mix and the importance to a business of differentiating a product/service. Their understanding of each element of the marketing mix will be embedded from year 10 to help then analyse how each element can build a competitive advantage. | Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions. | Pupils know the 3 elements of the design mix and can identify a range of differentiation strategies a business might choose in order to remain competitive. |
| | Term 3 6 Weeks Max. No. Lessons: 18 | Making Operational Decisions Pupils will understand the different methods of production and how technology can impact on production in terms of cost, productivity, quality and flexibility. They will be able to interpret a bar graph stock graphs and the use of just in time (JIT) stock control and make informed decision as to which system is appropriate for a given business | Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and | Pupils know the difference between job, batch and flow production. They can clearly articulate the pros and cons of stock control looking specifically at traditional v's JIT systems. |

Powerful Knowledge includes key 'invaluable' and distinct knowledge concepts linked to this subject; it is distinct from common sense.

Assessment Format to follow whole-school expectations (MCQs for Content Knowledge & Understanding, GCSE-style Qs. for Application of Skills).



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| | | scenario. Finally, pupils will develop understanding of how businesses can improve the quality of their goods and services in terms of quality control and quality assurance Systems. | exam technique covering A01 to A03 questions. | |
| Term 4 7 Weeks Max. No. Lessons:20 | Making Financial Decisions Pupils will be able to calculate gross profit, net profit and interpret the meaning of gross profit margin, net profit margin and average rate of return. Finally, they will be able to discuss the use and limitations of financial information in understanding business performance making business decisions. | Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions. | | Pupils will know a range of formula to calculate profit and will be know how to access a business success / failure by interpreting these ratios. |
| Term 5 4 Weeks Max. No. Lessons: 12 | Making Human Resource Decisions Pupils will be able to explain the different ways of working including part-time, full-time and flexible hours, permanent, temporary, and freelance contracts and the impact of technology on ways of working: efficiency, remote working. They explore the role of HR in terms of recruitment, training and motivation and will be able to identify a range of financial and non- financial methods of motivation. | Formative Assessment Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique covering A01 to A03 questions. | | Pupils will know the importance of a HR department in terms of recruitment, training and enforcing employment laws. They will know the importance of staff motivation and retention to the success of a business. |
| Term 6 7 Weeks Max. No. Lessons: 20 | GCSE Exams | | | |

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| Year 10 Scheme Overview Btec Digital Award IT | Term / Duration | Topic & Main Content Overview | Assessment Task/Focus & Objectives | Powerful Knowledge for Year 10 (referenced to topic as appropriate) |
|---|--|---|---|---|
| | Term 1 7 Weeks Max. No. Lessons: 20 | Component 1: Investigate user interface design for individuals and organisations Pupils will investigate different types of user interface used by individuals and organisations. They will investigate how they vary across different uses, devices and purposes and will investigate the varying needs of the audience and how they affect both the type and the design of the interface. | Formative Assessment/key piece of work prior to end of unit: Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique. | Pupils will know how to complete a range of tasks required to plan and delivery a range of digital media products and attempt fully an external written paper on this unit. |
| | Term 2 8 Weeks Max. No. Lessons: 24 | Component 1: Designing and Creating User Interface Pupils will investigate a wide variety of design principles that provides both appropriate and effective user interaction with hardware devices. In addition they will investigate techniques that can be used to improve both the speed and access to user interfaces. | Formative Assessment/key piece of work prior to end of unit: Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique as well as level for practice portfolio. | Pupils will know how to create a portfolio of work to meet the requirements of a client brief. |
| | Term 3 6 Weeks Max. No. Lessons: 18 | Component 1: Use project planning techniques to plan and design a user interface Pupils will investigate different planning tools and design methodologies that can be used to plan, | Formative Assessment/key piece of work prior to end of unit: Check of quality of portfolio work making use of exam board level descriptors. Summative Assessment | Pupils will know how to complete a range of tasks required to plan and delivery a digital graphic for a specific client brief. |

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Assessment Format to follow whole-school expectations (MCQs for Content Knowledge & Understanding, GCSE-style Qs. for Application of Skills).



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| | monitor and execute projects. They will also select suitable project planning techniques to develop a project plan for the development of a user interface for a given brief. Finally they will create an initial design using the design principles learnt in Term 2. | End of unit level descriptors complete with scores assigned for each task completed so far. | |
| Term 4 7 Weeks Max. No. Lessons:20 | <p>Component 1:</p> <p>Creating and reviewing effectiveness of user interface.</p> <p>Building on the skills and understanding that they have developed in the previous unit, pupils will use their design to produce a user interface. They will then refine their user interface using an iterative process with potential users and review the success of the user interface and the use of their chosen project planning techniques</p> | <p>Formative Assessment/key piece of work prior to end of unit:</p> <p>Check of quality of portfolio work making use of exam board level descriptors.</p> <p>Summative Assessment</p> <p>End of unit level descriptors complete with scores assigned for each task completed so far.</p> | Pupils will know how to complete a range of tasks required to plan and delivery a digital graphic for a specific client brief. |
| Term 5 4 Weeks Max. No. Lessons: 12 | <p>Component 3:</p> <p>Effective Digital Working Practices</p> <p>Pupils will understand how and why modern technologies are used by organisations and stakeholders to access and manipulate data, and to provide access to systems and tools in order to complete tasks. Learners should understand the implications of these tools and technologies for organisations and stakeholders.</p> | <p>Formative Assessment/key piece of work prior to end of unit:</p> <p>Check of quality of portfolio work making use of exam board level descriptors.</p> <p>Summative Assessment</p> <p>End of unit level descriptors complete with scores assigned for each task completed so far.</p> | Pupils will know how to complete a range of tasks required to plan and delivery an interactive multimedia product for a specific client brief. |

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| | <p>Term 6 7 Weeks Max. No. Lessons: 20</p> | <p>Component 3:</p> <p>Threats to digital systems</p> <p>Pupils will understand why systems are attacked, the nature of attacks and how they occur, and the potential impact of breaches in security on the organisation and stakeholders. They will understand how different measures can be implemented to protect digital systems including the security policies in organisations.</p> | <p>Formative Assessment/key piece of work prior to end of unit: Check of quality of portfolio work making use of exam board level descriptors.</p> <p>Summative Assessment End of unit level descriptors complete with scores assigned for each task completed so far.</p> | <p>Pupils will know how to complete a range of tasks required to plan and delivery an interactive multimedia product for a specific client brief.</p> |
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| Year 11 Scheme Overview Btec Digital Award in IT | Term / Duration | Topic & Main Content Overview | Assessment Task/Focus & Objectives | Powerful Knowledge for Year 11 (referenced to topic as appropriate) |
|---|--|---|--|---|
| | <p>Term 1 7 Weeks Max. No. Lessons: 20</p> | <p>Component 3:</p> <p>The wider implications of digital systems</p> <p>Pupils will understand the wider implications of digital systems and their use. Learners should understand how legislation covering data protection, computer crimes and intellectual property has an impact on the way that organisations and individuals use digital systems and data. They will consider the responsible use of digital systems, including how systems and</p> | <p>Formative Assessment/key piece of work prior to end of unit: Check of quality of portfolio work making use of exam board level descriptors.</p> <p>Summative Assessment End of unit level descriptors complete with scores assigned for each task completed so far.</p> | <p>Pupils will know how to complete a range of tasks required to plan and delivery a comic strip product for a specific client brief.</p> |

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| | | services share and exchange data as well as the environmental considerations of increased use. | | |
| Term 2 8 Weeks Max. No. Lessons: 24 | Component 3: Planning and communication in digital systems Pupils are introduced to how individuals in the digital sector plan solutions and communicate meaning and intention. They should understand how different forms of written and diagrammatical communication can be used to express understanding and demonstrate the flow of data and information. Exam Preparation for February Public Exam | | Formative Assessment/key piece of work prior to end of unit: Check of quality of portfolio work making use of exam board level descriptors. Summative Assessment End of unit level descriptors complete with scores assigned for each task completed so far. | Pupils will know how to complete a range of tasks required to plan and delivery a comic strip product for a specific client brief. |
| Term 3 6 Weeks Max. No. Lessons: 18 | Component 2 Collecting, Presenting and Interpreting Data Pupils understand the concepts of data and that data is meaningless without converting it into information by adding structure and context. They explore the different ways of representing information and will be able to explain situations where they would be used. Pupils will understand how the data collection method and data collection features affect its reliability. | | Formative Assessment/key piece of work prior to end of unit: Check of quality of exam technique questions throughout the unit, making use of MCQ's. Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique. | Pupils will know how to complete a range of tasks required to plan and delivery a range of digital media products and attempt fully an external written paper on this unit. |

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| | <p>Term 4 7 Weeks Max. No. Lessons:20</p> | <p>Component 2</p> <p>Create a dashboard using data manipulation tools</p> <p>Pupils will understand how data can be imported from an external source. They will then explore how to apply data processing methods. They will also use a dashboard to select and display information summaries based on a given large data set.</p> | <p>Formative Assessment/key piece of work prior to end of unit: Check of quality of portfolio work making use of exam board level descriptors.</p> <p>Summative Assessment End of unit level descriptors complete with scores assigned for each task completed so far.</p> | <p>Pupils will know how to improve their work in terms of planning and delivering a digital graphic for a specific client brief.</p> |
| | <p>Term 5 4 Weeks Max. No. Lessons: 12</p> | <p>Component 2</p> <p>Draw conclusions and review data presentation methods</p> <p>Pupils will draw conclusions on the data set, using their dashboard in order to make recommendations. They will assess how well they have used the presentation features listed in B2, to ensure they do not lead to information being misinterpreted, information being biased, or inaccurate conclusions being made.</p> | <p>Formative Assessment/key piece of work prior to end of unit: Check of quality of exam technique questions throughout the unit, making use of MCQ's. Check of quality of portfolio work making use of exam board level descriptors.</p> <p>Summative Assessment End of unit test to demonstrate understanding of the key theory and exam technique. End of unit level descriptors complete with scores assigned for each task completed so far.</p> | <p>Pupils will develop knowledge of all units addressed over the two year course and know how to use competently exam technique in their written paper and improve their 3 portfolios of work.</p> |
| | <p>Term 6 7 Weeks Max. No. Lessons: 20</p> | <p>GCSE Exams</p> | | |

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