

Curriculum Overview 2025-26 Computing & Business

Curriculum overview for Year 7

TERM	Autumn HT 1	Autumn HT 2	Spring HT 1	Spring HT 2	Summer HT 1	Summer HT 2
Curriculum Content: Priority Essential knowledge and skills that will be taught.	Impact of technology – Collaborating online respectfully Key Knowledge: - Create a memorable and secure password for an account on the school network - Remember the rules of the computing lab - Find personal documents and common applications - Recognise a respectful email - Construct an effective email and send it to the correct recipients - Describe how to communicate with peers online - Describe cyberbullying - Explain the effects of cyberbullying - Check who you are talking to online	Using media – Gaining support for a cause Key Knowledge: - Identify the key features of a word processor - Evaluate formatting techniques to understand why we format documents - Select appropriate images for a given context - Apply appropriate formatting techniques - Demonstrate the ability to credit the original source of an image - Critique digital content for credibility - Apply techniques in order to identify whether or not a source is credible - Understand the concept of plagiarism - Evaluate online sources for use in own work - Construct a blog using appropriate software	Modelling data Key Knowledge: - Identify columns, rows, cells, and cell references in spreadsheet software	Networks and Networking Key Knowledge: - Define what a computer network is and explain how data is transmitted between computers across networks - Define 'protocol' and provide examples of non-networking protocols - Define what the internet is - Explain how data travels between computers across the internet - Describe key words such as 'protocols', 'packets', and 'addressing' - Describe how services are provided over the internet - List some of these services and the context in which they are used - Describe components (servers, browsers, pages, HTTP and HTTPS protocols, etc.) and how they work together	Introduction to programming Key Knowledge: - Compare how humans and computers understand instructions (understand and carry out) - Define a sequence as instructions performed in order, with each executed in turn - Predict the outcome of a simple sequence - Define a variable as a name that refers to data being stored by the computer - Recognise that computers follow the control flow of input/process/output - Trace the values of variables within a sequence	Programming for computer systems - Hardware Key Knowledge: - Recall that a general-purpose computing system is a device for executing programs - Recall that a program is a sequence of instructions that specify operations that are to be performed on data - Recall that all computing systems, regardless of form, have a similar structure ('architecture') - Recall that, since hardware is built out of logic circuits, data and instructions alike need to be represented using binary digits - Provide broad definitions of 'artificial intelligence' and 'machine learning' - Associate the use of artificial intelligence with moral dilemmas - Explain the implications of sharing program code



	Skills: Plan effective presentations for a given audience - Describe cyberbullying - Explain the effects of cyberbullying - Plan effective presentations for a given audience. Introducing Diversity Champions.	Skills: - Select the most appropriate software to use to complete a task - Apply the key features of a word processor to format a document	Skills: - Use formatting techniques in a spreadsheet - Use basic formulas with cell references to perform calculations in a spreadsheet (+, -, *, /) - Use the autofill tool to replicate cell data - Explain the difference between data and information - Explain the difference between primary and secondary sources of data.	Skills: List examples of the hardware necessary for connecting devices to networks - Compare wired to wireless connections and list examples of specific technologies currently used to implement such connections - Explain the difference between the internet, its services, and the World Wide Web	Skills: Modify a sequence Make a sequence that includes a variable Identify where count-controlled iteration can be used in a program - Implement count-controlled iteration in a program - Detect and correct errors in a program (debugging) Introducing Microbit block editor.	Skills: Explain the difference between a general-purpose computing system and a purpose-built device - Describe the function of the hardware components used in computing systems - Describe the NOT, AND, and OR logical operators, and how they are used to form logical expressions - Use logic gates to construct logic circuits, and associate these with logical operators and expressions Introducing Microbit MicroPython.
	Future Links: This unit sets the students up to be able to use the school computers systems. This is the first look at developing the vital digital literacy that the students will use throughout their learning and working lives.	Future Links: This unit introduces the students to the suite of software that they will use throughout their learning and working lives. The unit also introduces the correct and safe manner to use the internet for research and evaluation of data considering validity and bias which is essential to be a user of the internet.	Future Links: This unit introduces the students to of numbers and data analysis using computers. Numbers are the backbone of computing the spreadsheet is used as the tool to search, sort and analyse data. The unit also introduces the students to the different methods of preventing data to an audience.	Future Links: This unit introduces the students to networking and networks. We all use the Internet, but what is the Internet and how does it work? The unit introduces the move away from 'anchored' wired networks to wireless systems. These are the systems the students will use throughout their learning and working lives and social lives.	Future Links: This unit introduces the students to programming. Understanding how humans and computers communicate. Programming allows the student to understand how computers work, the logic required to develop new systems and the care needed to plan and develop	Future Links: This unit introduces the students to the actions their programming has upon the computing hardware. Examining logic gates and logical operators the backbone of all current computing hardware. These are the systems the students will use throughout their learning and working lives and social lives.

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Curriculum overview for Year 8

TERM	Autumn HT 1	Autumn HT 2	Spring HT 1	Spring HT 2	Summer HT 1	Summer HT 2
Curriculum Content: Priority Essential knowledge and skills that will be taught.	Programming constructs Prior Learning: This unit builds upon the skills and knowledge developed in Introduction to programming, Introduction to Computing Hardware and modelling data Key Knowledge: - Define a subroutine as a group of instructions that will run when called by the main program or other subroutines - Define decomposition as breaking a problem down into smaller, more manageable subproblems - Identify how subroutines can be used for decomposition - Identify where condition-controlled iteration can be used in a program - Implement condition-controlled iteration in a program	Developing for the web Prior Learning: This unit builds upon the skills and knowledge developed in Introduction to programming and Networks and Networking Key Knowledge: - Describe what HTML is - Describe what CSS is - Assess the benefits of using CSS to style pages instead of in-line formatting - Describe what a search engine is - Explain how search engines 'crawl' through the World Wide Web and how they select and rank results - Analyse how search engines select and rank results when searches are made	Developing in Python Prior Learning: This unit builds upon the skills and knowledge developed in Introduction to programming and Developing for the web. Key Knowledge: - Describe what algorithms and programs are and how they differ - Recall that a program written in a programming language needs to be translated in order to be executed by a machine - Write simple Python programs that display messages, assign values to variables, and receive keyboard input - Locate and correct common syntax errors	Representations – from clay to silicon Prior Learning: This unit builds upon the skills and knowledge developed in Modelling data and the previous programming units. Key Knowledge: - List examples of representations - Recall that representations are used to store, communicate, and process information - Provide examples of how different representations are appropriate for different tasks - Recall that characters can be represented as sequences of symbols and list examples of character coding schemes - Measure the length of a representation as the number of symbols that it contains - Provide examples of how symbols are carried on physical media	Cybersecurity Prior Learning: This unit builds upon the skills and knowledge developed in Representations – from clay to silicon and Networks and Networking. Key Knowledge: - Explain the difference between data and information - Critique online services in relation to data privacy - Identify what happens to data entered online - Explain the need for the Data Protection Act - Recognise how human errors pose security risks to data - Implement strategies to minimise the risk of data being compromised through human error - Define hacking in the context of cyber security - Explain how a DDoS attack can impact	Data Science Prior Learning: This unit builds upon the skills and knowledge developed in the previous Introduction to Spreadsheets Unit Key Knowledge: Students gain an understanding and knowledge of how to use spreadsheets to store and manipulate data, how to use common functions, and how to extract data to create visual representations using charts. Learners will use spreadsheets to track and calculate income, make predictions, and answer "what if...?" questions.

	Skills: Use decomposition Use abstraction Use Iteration For – While. Identify the problems to using indefinite iteration. Use lists Use subroutines	Skills: Use HTML to structure static web pages - Modify HTML tags using inline styling to improve the appearance of web pages - Display images within a web page - Apply HTML tags to construct a web page structure from a provided design - Use CSS to style static web pages - Use search technologies effectively	Skills: - Use iteration (while loops) to control the flow of program execution - Use variables as counters in iterative programs - Combine iteration and selection to control the flow of program execution - Use Boolean variables as flags - Use multi-branch selection (if, elif, else statements) to control the flow of program execution - Use relational operators to form logical expressions - Use binary selection (if, else statements) to control the flow of program execution	Skills: - Convert a decimal number to binary and vice versa - Convert between different units and multiples of representation size - Provide examples of the different ways that binary digits are physically represented in digital devices	users of online services Skills: - Question how malicious bots can have an impact on societal issues - Compare security threats against probability and the potential impact to organisations - Explain how networks can be protected from common security threats - Identify the most effective methods to prevent cyberattacks	Skills: - Create a spreadsheet model for a given scenario - Demonstrate how to use formulae to perform calculations - Apply cell formatting to make the spreadsheet readable and to highlight different specific information - Use data validation when entering data in order to reduce user error - Implement conditional formatting techniques Format cells correctly, e.g. cells representing money should be currency, etc. - Select the most suitable chart to visualise the selected data - Recognise the importance of clear titles and labels - Implement and test a macro to carry out a repetitive task - Implement a LOOKUP function to retrieve data - Implement an IF function to give the user feedback
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	Future Links: The students learn the 'rules' of programming. Moving their skills and knowledge forward to consider how computing systems are used in the wider world to analysis data and crunch numbers	Future Links: The students learn how to develop and manipulate HTML & CSS which is the backbone of the World Wide Web. This unit will support the students understanding for the systems the students will use throughout their learning and working lives and social lives.	Future Links: This unit builds upon the students' knowledge of programming using Python the world's largest programming language. Looking deeper at its constructs and developing the student's resilience and problem-solving skills. This unit will support the students understanding for the systems the students will use throughout their learning and working lives	Future Links: This unit builds upon the students' knowledge of data analysis, representation of data, where data comes from and how business use data. For Apple, Google, Amazon, Meta and all other computing industries who consider Data as the new Money. This unit will support the students understanding for the systems the students will use throughout their learning and working lives and social lives.	Future Links: This unit builds upon the students' knowledge of data, data processing, networking the internet and business uses of data. This unit will support the students understanding for the systems the students will use throughout their learning and working lives and social lives.	- Demonstrate that skills developed in the lessons can be applied to a different scenario Solve problems using transferable skills - Think widely about the uses for and purposes of spreadsheets Future Links: This unit builds upon the students' knowledge of spreadsheets introducing data analysis tools and case studies showing the importance of fair and reliable processing of data. The students understanding of the power of Data . This unit will support the students understanding for the systems the students will use throughout their learning and working lives
SIAMS	To promote students' spiritual development, their sense of self and their will to achieve, the Computing department continually takes the opportunity to praise students for their contribution in lessons.	Students learn about the threats to data and the need for cybersecurity, they will also consider social engineering and the use of malware discussing the effects of these threats on society as a whole	Pupils may use paired programming to assist in the development of programming skills and to communicate ideas to each other in a respectful and supportive manner	Computational thinking encourages students to develop and explore their problem solving skills. Computing Empowers students to apply their Computing skills and to gain knowledge of how programming links	They consider the implications of file sharing and downloading illegally and the penalties for engaging in this type of activity. Pupils also consider the moral aspects of developments in	Whilst studying various aspects of Computing students are asked to reflect on how different cultures are portrayed on the internet and why or who is portraying them in this way. Students are also challenged to think

				between subjects for instance maths.	technology including the use of CCTV camera, Speed Cameras and Loyalty Cards.	about how differing cultures access and use the internet and what implications this has on the individual and the culture.
Assessment	Progress and Skills marking and feedback. End of unit Test.	Progress and Skills marking and feedback. End of unit Test.	Progress and Skills marking and feedback. End of unit Test.	Progress and Skills marking and feedback. End of unit Test.	Progress and Skills marking and feedback. End of unit Test.	Progress and Skills marking and feedback. End of unit Test.

Curriculum overview for Year 9

TERM	Autumn HT 1	Autumn HT 2	Spring HT 1	Spring HT 2	Summer HT 1	Summer HT 2
Curriculum Content: Priority Essential knowledge and skills that will be taught.	Online Safety Prior Learning: This unit builds upon the skills and knowledge developed in Impact of technology – Collaborating online respectfully and Networks and Networking. Key Knowledge: Discuss the main safety concerns of being online Reflect on online activity from a safety perspective Define online reputation and discuss what it is made up of Discuss techniques on how to build a positive online reputation	Python Advanced Prior Learning: This unit builds upon the skills and knowledge developed in Programming constructs and Introduction to Python Programming. Key Knowledge: Python programming with sequences of data - Write programs that display messages, receive keyboard input, and use simple arithmetic expressions in assignment statements - Locate and correct common syntax errors	ICT in the World of Work Prior Learning: This unit builds upon the skills and knowledge developed in Impact of technology – Collaborating online respectfully, Modelling data, Networks and Networking and using media to gain support for a cause. Key Knowledge: Examine traditional and modern team working Interpret the advantages and disadvantages of 24/7/365 availability Compare inclusivity and accessibility within traditional and modern teams Making marketing decisions	User Interfaces. Prior Learning: This unit builds upon the skills and knowledge developed in ICT in Business, Introduction to Python Programming, programming construct and Developing for the web. Key Knowledge: Examine modern technology tools that help with inclusivity and accessibility Explore communication tools Evaluate collaborative working Explain Collaboration methods. Explain different communication methods,	Introduction to AI Prior Learning: This unit builds upon the skills and knowledge developed in Impact of technology – Collaborating online respectfully, Modelling data, Networks and Networking. Key Knowledge: Describe the difference between 'data-driven' and 'rule-based' approaches to application development. Define machine learning's relationship to artificial intelligence Describe how classification can be	GCSE Ready Skills Prior Learning: This unit builds upon the skills and knowledge developed in Impact of technology – Collaborating online respectfully, e-safety, Online safety, Social media setup, Modelling data, Networks and Networking, using media to gain support for a cause, ICT in business, cybersecurity, programming constructs, Python Programming, Developing with HTML, User Interfaces and Project Management. Key Knowledge: e-safety Being safe online Cyber Security Social Media & Ethics Digital Ethics Digital Pathways Personal Statements Interviews e-commerce Effective social media setup Projects



	Discuss the ways in which one's online reputation might be under threat and how to defend it Define the terms 'big data' and 'data analytics'	- Create lists and access individual list items Skills: - Use iteration (for statements) to iterate over list items - Perform common operations on lists or strings - Use iteration (for loops) to iterate over lists and strings - Use variables to keep track of counts and sums	Marketing mix Product Price Place Promotion Marketing mix decisions Skills: Market mapping and segmentation Market research, Primary & Secondary. Quantative and Qualitative methods Competition Costs, revenue and profit	Explain accessibility requirements and legislation. Explain the importance inclusivity for digital systems. Skills: Planning Develop an interface design for individual and organisation. Create a word-processed report with annotated screenshots of the user interface prototype Develop an electronic copy of the prototype of the interface. Evaluate their UI.	solved using supervised learning Accuracy of a machine learning (ML) model Bias and Fake News Explain the need for both training and test data Use a machine learning tool to import data and train a model Test and examine the accuracy of an ML model Skills: Create a Decision tree. Create a LM using, image and text prompts. Create a PERT chart Evaluate planning tools Create LM	Researcher The art of selling Jargon Buster Influencer Using Social Media in Business Growth mindset Advertising Money management
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	Future Links: Knowing how to navigate the Internet, reading and considering the validity and bias, considering what is real and what is fake news. Developing filters to ensure that all decisions are made using the correct data. This unit will support the students understanding for the systems the students will use throughout their learning and working lives and social lives	Future Links: This unit prepares the students with the deeper knowledge and understanding required to continue the study of computer science for GSCE, college and the working world.	Future Links: The development of Computing has changed the world of commerce to become 24/7 365 days, always on business world we know. This unit uncovers the synergy between business and computing and looks at the working world and the essential skills students will need in order to succeed.	Future Links: This unit introduces the students to the developments of User Interfaces and User Experience. These features are key in developing successful interface and software. For example, the 'Apple look'. This is area of new employment opportunities. This unit will support the students understanding for the systems the students will use throughout their learning and working lives	Future Links: This unit introduces the student to real-world AI applications and be made aware of the ever-increasing range of AI-related careers. Considering the social and ethical implications of AI developments. Exploring machine learning models and the engines that make them work. Creating your own machine learning models. Understanding the stages of the AI project lifecycle.	Future Links: This unit introduces the idea of being a digital citizen this links to all future skills as students will have to navigate the constant intrusion of digital mediums into all aspects of life.
SIAMS	Students are continually reflecting on their own lives and the lives of others as they look at various case studies. Students debate and formulate their own set of values and beliefs through case studies and as they share their own experiences.	Computing lets students have the opportunity to reflect on how computers can sometimes perform better in certain activities than people. To promote students' spiritual development, their sense of self and their will to achieve, the Computing department continually takes the opportunity to praise students for their contribution in lessons.	The study of involves students being encouraged to develop their team working skills through collaborative work and research. The students also explore the concept of teams and the roles that individuals have to play and how this can impact a business. Students often work collaboratively to understand new concepts and share information researched, thus giving	As part of the Computing curriculum students are taught to think and produce work that reflects the needs of diverse audiences within our community and the wider community	Through real life case studies, students consider issues surrounding the misuse and access rights to personal data. The use of case studies in Computing encourages students to draw conclusions through evidence rather than their preconceptions whilst allow the students the time to reflect on the origins of their own personal perceptions of a topic.	Computing involves the breaking through of linguistic and cultural barriers. It is possible to e-mail or chat across the world and to word process in the mother tongue. Whilst studying various aspects of Computing students are asked to reflect on how different cultures are portrayed on the internet and why or who is portraying them in this way. Students are also challenged to think about how differing

			them responsibility over their work.			cultures access and use the internet and what implications this has on the individual and the culture.
Assessment	Progress and Skills marking and feedback. End of unit Test.	Progress and Skills marking and feedback. End of unit Test.	Progress and Skills marking and feedback. End of unit Test.	Progress and Skills marking and feedback. End of unit Test.	Progress and Skills marking and feedback. End of unit Test.	Progress and Skills marking and feedback. End of Year Test.