



| Year 7                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| Term 1: Autumn                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                           | Term 2: Spring                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                | Term 3: Summer                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                  | Age Related Expectations (ARE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Unit 1: Digital Communication</b><br><br><b>Purpose:</b> <ul style="list-style-type: none"> <li>Students will be introduced to using the school network and Google.</li> <li>They will hone vital skills regarding online safety, emails and research.</li> <li>They will begin to manage and access files.</li> </ul> <b>Knowledge and skills:</b> <ul style="list-style-type: none"> <li>Students will develop skills to stay safe</li> </ul> | <b>Unit 2: Computer Systems</b><br><br><b>Purpose:</b> <ul style="list-style-type: none"> <li>Students will study an introduction into the different types of computers and learn the different hardware and software.</li> <li>They will learn the roles within IPOS, specifically input and output peripherals.</li> </ul> <b>Knowledge and Skills:</b> <ul style="list-style-type: none"> <li>Students will</li> </ul> | <b>Unit 3: Modelling</b><br><br><b>Purpose:</b> <ul style="list-style-type: none"> <li>Students will learn how to create and analyse data presented in spreadsheets.</li> <li>They will learn how to do calculations and display data in a graphical format.</li> </ul> <b>Knowledge and Skills:</b> <ul style="list-style-type: none"> <li>Students will learn how to record data into a spreadsheet, how to format columns and</li> </ul> | <b>Unit 4: Using media for a cause</b><br><br><b>Purpose:</b> <ul style="list-style-type: none"> <li>This unit will teach students how to use and evaluate resources online.</li> <li>Students will develop their ability to create, re-use, revise and re-purpose digital artifacts for a given audience and purpose.</li> </ul> <b>Knowledge and skills:</b> <ul style="list-style-type: none"> <li>Students will</li> </ul> | <b>Unit 5: The Four Cornerstones</b><br><br><b>Purpose:</b> <ul style="list-style-type: none"> <li>Students will develop different approaches to help solve problems using computational thinking.</li> </ul> <b>Knowledge and skills:</b> <ul style="list-style-type: none"> <li>Students will learn the meaning of decomposition, abstraction, pattern recognition and algorithms.</li> <li>They will be able to</li> </ul> | <b>Unit 6: Visual Programming</b><br><br><b>Purpose:</b> <ul style="list-style-type: none"> <li>Students will use visual programming to bridge the gap from primary to secondary.</li> <li>They will learn how to sequence instructions and test and revise their outcomes.</li> </ul> <b>Knowledge and skills:</b> <ul style="list-style-type: none"> <li>Students will apply the use of decomposition, abstraction,</li> </ul> | <ul style="list-style-type: none"> <li>Students can undertake creative projects, using a variety of applications, to become competent users of IT.</li> <li>Students can understand and apply the fundamental principles and concepts of computer science, including binary, Boolean logic, key algorithms and data representation.</li> <li>Students use computational thinking to analyse problems and use multiple programming languages.</li> <li>Students learn to design, manipulate and evaluate computational models for a given purpose or audience.</li> <li>Students can understand a range of ways to use</li> </ul> |



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| <p>online and be aware of threats that face them.</p> <ul style="list-style-type: none"><li>• They will know and practice how to keep their data secure whilst also saving and retrieving files.</li><li>• Students will be able to navigate Google classroom and send, receive and organise emails.</li></ul> | <p>learn about different personal computers, as well as other embedded technologies.</p> <ul style="list-style-type: none"><li>• They will understand the difference between hardware and software, understanding peripherals and IPOS.</li></ul> | <p>rows, how to perform and present calculations and make use of the formulas and functions.</p> <ul style="list-style-type: none"><li>• Students will be able to display data as a graph or chart.</li></ul> | <p>learn how to effectively research a topic, identifying bias, reliability and validity, including fake news.</p> <ul style="list-style-type: none"><li>• Students will present information, with images.</li><li>• Students will be taught the meaning of copyright when using other people's digital property.</li></ul> | <p>produce a planned solution to a given problem which will merge into the Scratch programming unit where students will be expected to use these skills.</p> | <p>pattern recognition, algorithm design. They will learn how to apply sequence, selection and iteration.</p> <ul style="list-style-type: none"><li>• Students will learn how to create a fully functional product in Scratch.</li></ul> | <p>technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct and know how to report concerns.</p> <ul style="list-style-type: none"><li>• Students can explain the hardware and software components that make up computer systems.</li></ul> |
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