



### Upper KS2 Progressions of Skills-Computing

| Year B  | Autumn 1  | Autumn 2                                 | Spring 1   | Spring 2                              | Summer 1                                   | Summer 2  |
|---|---|--|--|---------------------------------------|--|---|
| Computing Topic<br>National Curriculum<br>Subject Content | What did the Romans do for us?(History)   | Masterpiece or Monstrosity? (Art)        | How can I help save the world?<br>(Science/Geography)          | Who were the Mayans? (History)        | Can you generate, Design, Create? (DT)     | Did Eyam Save England? (History)  |
| Global Goals  | 9. Industry, Innovation and infrastructure  | 16. Peace, Justice and Strong Intentions | 13. Climate Action<br>15. Life on Land<br>14. Life below water | 11 Sustainable Cities and Communities | 12. Responsible consumption and production | 8. Decent Work and Economic Growth.   |
| British Values  | Democracy   | Rule of Law                              | Individual Liberty   | Mutual Respect                        | Democracy                                  | Rule of Law   |
| Purple Mash Unit  | 5.2 Online Safety   | 5.6 3D Modelling                         | 5.8 Word Processing<br>Google Docs                             | 5.7 Concept Maps                      | 6.3 Spreadsheets                           | 6.5 Text Adventures   |
| Knowledge   |   |  |  |                                       |  |   |
| Computer Science  | Understand computer networks, including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration. |  |  |                                       |  | Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.<br><br>Use sequence, selection and repetition in programs; work with variables and various forms of input and output.<br><br>Use logical reasoning to explain how some simple algorithms work |



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|                        |  |   |   |   |   | and to detect and correct errors in algorithms and programs.  |
| Information Technology |  | Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. | Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. | Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. | Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. | Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. |
| Digital Literacy       | Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.   |   |   |   |   |   |
| Skills                 |  |   |   |   |   |   |
|                        | <p>To gain a greater understanding of the impact that sharing digital content can have. To review sources of support when using technology. To review children's responsibility to one another in their online behaviour</p> <p>To know how to maintain secure passwords. To</p> | <p>To be introduced to 2Design and Make.</p> <p>To explore the effect of moving points when designing.</p> <p>To understand designing for a purpose</p> <p>To understand printing and making.</p>   | <p>Making a document from a blank page</p> <p>Inserting Images: Considering Copyright</p> <p>Editing Images in Word</p> <p>Adding the text</p> <p>Finishing touches</p> <p>Presenting information</p>   | <p>To understand the need for visual representation when generating and discussing complex ideas.</p> <p>To understand and use the correct vocabulary when creating a concept map.</p> <p>To create a concept map.</p>  | <p>To use a spreadsheet to investigate the probability of the results of throwing many dice.</p> <p>To use a spreadsheet to calculate the discount and final prices in a sale. Create a formula to help work out the prices of items in the sale.</p> <p>To use a spreadsheet to</p>  | <p>To find out what a text-based adventure game is and to explore an example made in 2Create a Story.</p> <p>To use 2Connect to plan a 'Choose your own Adventure' type story.</p> <p>To use 2Connect plans for a story adventure to make the adventure</p>                           |



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|  | <p>understand the advantages, disadvantages, permissions and purposes of altering an image digitally and the reasons for this. To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online</p> <p>To learn about how to reference sources in their work To search the Internet with a consideration for the reliability of the results of sources to check validity and understand the impact of incorrect information. Ensuring reliability through using different methods of communication</p> |  | <p>using tables</p> <p>Writing a letter using a template</p> <p>Making a document from a blank page</p> | <p>To understand how a concept map can be used to retell stories and information.</p> <p>To create a collaborative concept map and present this to an audience.</p> | <p>plan how to spend pocket money and the effect of saving money.</p> <p>To use a spreadsheet to plan a school charity day to maximise the money donated to charity.</p> | <p>using 2Create a Story.</p> <p>To introduce an alternative model for a text adventure which has a less sequential narrative.</p> <p>To use written plans to code a map-based adventure in 2Code.</p> |
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