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| **Computing Year 6** | **Autumn** | **Spring** | **Summer** |
| **Scientific Enquiry Objectives**   * Pupils should be taught to: * design, write and debug programs that accomplish specific goals, including controlling * or simulating physical systems; solve problems by decomposing them into smaller * parts * use sequence, selection, and repetition in programs; work with variables and various * forms of input and output * use logical reasoning to explain how some simple algorithms work and to detect and * correct errors in algorithms and programs * 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 * use search technologies effectively, appreciate how results are selected and ranked, * and be discerning in evaluating digital content * 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 * use technology safely, respectfully and responsibly; recognise * acceptable/unacceptable behaviour; identify a range of ways to report concerns about   content and contact. | Cycle A | | |
| **Spreadsheets (6.3)**  To use a spreadsheet to investigate the  probability of the results of throwing  many dice.  • To use a spreadsheet to calculate the  discount and final prices in a sale.  • To use a spreadsheet to plan how to  spend pocket money and the effect of  saving money.  • To use a spreadsheet to plan a school  charity day to maximise the money  donated to charity.  **Online Safety 6.2**  To identify benefits and risks of mobile devices broadcasting the location of the user/device.  • To identify secure sites by looking for privacy seals of approval.  • To identify the benefits and risks of  giving personal information.  • To review the meaning of a digital  footprint.  • To have a clear idea of appropriate  online behaviour.  • To begin to understand how  information online can persist.  • To understand the importance of  balancing game and screen time with  other parts of their lives.  • To identify the positive and negative  influences of technology on health and  the environment. | **Coding (6.1)**  To design a playable game with a timer and a score.  • To plan and use selection and variables.  • To understand how the launch command works.  • To use functions and understand why they are useful.  • To understand how functions are created and called.  • To use flowcharts to create and debug code.  • To create a simulation of a room in which devices can be controlled.  • To understand how user input can be used in a program.  • To understand how 2Code can be used to make a text-adventure game. | **Networks (6.5)**  To learn about what the Internet  consists of.  • To find out what a LAN and a WAN  are.  • To find out how the Internet is  accessed in school.  • To research and find out about the age of the Internet.  • To think about what the future might hold for networking.  **Binary (6.8)**  To examine how whole numbers are  used as the basis for representing all  types of data in digital systems.  • To recognise that digital systems  represent all types of data using  number codes that ultimately are  patterns of 1s and 0s (called binary  digits, which is why they are called  digital systems).  • To understand that binary represents  numbers using 1s and 0s and these  represent the on and off electrical  states respectively in hardware and  robotics. |
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