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 **Whole school overview: Computing**

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|  | **Term 1** | **Term 2** | **Term 3** | **Term 4** | **Term 5** | **Term 6** |
| **EYFS** | **Topic**: E-safety**Main Theme:**Speaking with an adult and sharing if worried about something. | **Topic:** Multimedia and Word processing**Main Theme:** Move and create shapes on screen. | **Topic:** Digital media**Main Theme:** Sound and pictures, exploring a range of devices. | **Topic:** Programming**Main Theme:** Bee Bots. Make choices about buttons to move the floor robot. | **Topic:** Data**Main Theme:** Different types of information |
| **Year 1** | **Topic**: Computing Systems and Networks**Main Theme:**Technology around us – recognising technology in school and using it responsibly. | **Topic:** Creating Media**Main Theme:** Digital painting - choosing appropriate tools in a program to create art and making comparisons with working non-digitally. | **Topic:** Programming A**Main Theme:**Moving a robot - writing short algorithms and programs for floor robots and predicting program outcomes. | **Topic:** Data and Information**Main Theme:**Grouping data - exploring object labels, then using them to sort and group objects by properties. | **Topic:** Creating Media**Main Theme:** Digital writing - Using a computer to create and format text, before comparing to writing non-digitally | **Topic:** Programming B**Main Theme:**Programming animations - designing and programming the movement of a character on screen to tell stories. |
| **Year 2** | **Topic**: Computing Systems and Networks**Main Theme:**Information technology around us – identifying IT and how its responsible use improves our world in school and beyond. | **Topic:** Creating Media**Main Theme:** Digital photography – capturing and changing digital photographs for different purposes. | **Topic:** Programming A**Main Theme:**Robot algorithms - creating and debugging programs, and using logical reasoning to make predictions. | **Topic:** Data and Information**Main Theme:**Pictograms - collecting data in tally charts and using attributes to organise and present data on a computer. | **Topic:** Creating Media**Main Theme:**Making music - Using a computer as a tool to explore rhythms and melodies, before creating a musical composition. | **Topic:** Programming B**Main Theme:**Programming quizzes - designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz. |
| **Year 3** | **Topic**: Computing Systems and Networks**Main Theme:** Connecting computers - Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks. | **Topic:** Creating Media**Main Theme:** Stop frame animation - Capturing and editing digital still images to produce a stop-frame animation that tells a story | **Topic:** Creating Media**Main Theme:**Desktop publishing -Creating documents by modifying text, images, and page layouts for a specified purpose. | **Topic:** Data and Information**Main Theme:**Branching databases - Building and using branching databases to group objects using yes/no questions. | **Topic:** Programming A**Main Theme:**Sequencing sounds - Creating sequences in a block-based programming language to make music. | **Topic:** Programming B**Main Theme:**Events and actions in programs - Writing algorithms and programs that use a range of events to trigger sequences of actions. |
| **Year 4** | **Topic**: Computing Systems and Networks**Main Theme:**The internet - Recognising the internet as a network of networks including the WWW, and why we should evaluate online content. | **Topic:** Creating Media**Main Theme:** Audio editing - Capturing and editing audio to produce a podcast, ensuring that copyright is considered. | **Topic:** Programming A**Main Theme:**Repetition in shapes -Using a text-based programming language to explore count-controlled loops when drawing shapes. | **Topic:** Data and Information**Main Theme:**Data logging - Recognising how and why data is collected over time, before using data loggers to carry out an investigation. | **Topic:** Creating Media**Main Theme:**Photo editing - Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled | **Topic:** Programming B**Main Theme:**Repetition in games -Using a block-based programming language to explore count-controlled and infinite loops when creating a game. |
| **Year 5** | **Topic**: Computing Systems and Networks**Main Theme:**Sharing information - Identifying and exploring how information is shared between digital systems. | **Topic:** Creating Media**Main Theme:**Vector drawing - Creating images in a drawing program by using layers and groups of objects. | **Topic:** Creating Media**Main Theme:** Video editing - Planning, capturing, and editing video to produce a short film | **Topic:** Data and Information**Main Theme:**Flat-file databases - Using a database to order data and create charts to answer questions | **Topic:** Programming A**Main Theme:**Selection in physical computing - Exploring conditions and selection using a programmable microcontroller. | **Topic:** Programming B**Main Theme:**Selection in quizzes - Exploring selection in programming to design and code an interactive quiz. |
| **Year 6** | **Topic**: Computing Systems and Networks**Main Theme:** Internet communication - Recognising how the WWW can be used to communicate and be searched to find information. | **Topic:** Creating Media**Main Theme:**3D modelling - Planning, developing, and evaluating 3D computer models of physical objects. | **Topic:** Creating Media**Main Theme:** Webpage creation - Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation. | **Topic:** Data and Information**Main Theme:**Introduction to spreadsheets - Answering questions by using spreadsheets to organise and calculate data. | **Topic:** Programming A**Main Theme:**Variables in games - Exploring variables when designing and coding a game. | **Topic:** Programming B**Main Theme:**Sensing - Designing and coding a project that captures inputs from a physical device. |