

Year 5 Computing Curriculum



Autumn	Computing systems and networks: Search engines	Data Handling: Mars Rover 1
Year 5	- How search engines work. - Anyone can create a website; therefore, people should take steps to check the validity of websites. - Web crawlers are computer programs that crawl through the internet. - What copyright is.	- Mars Rover is a motor vehicle that collects data from space by taking photos and examining rock samples. - What numbers using binary code look like and be able to identify how messages can be sent in this format. - RAM is Random Access Memory and acts as the computer's working memory. - What simple operations can be used to calculate bit patterns.
Spring	Code.org	Programming: Micro:bit
Year 5	-Create new sprites and assign them costumes and behaviours. -Define “sprite” as a character or object on the screen that can be moved and changed. -Modify an existing program in order add more advanced features. -Add on to a project to include more advanced features. -Create an interactive animation using sprites and events. -Create new sprites and assign them costumes and locations. -Design and build an interactive project -Explore and describe careers that use computer science -Practice basic coding skills -Present a project and explain the coding skills used -Create groups of sprites, and control a single sprite from the group using events. -Create new sprites. -Use a conditional statement to check for a winning score -Use a variable that stores information and changes over time	- To know that a Micro:bit is a programmable device. - To know that Micro:bit uses a block coding language similar to Scratch. - To understand and recognise coding structures including variables. - To know what techniques to use to create a program for a specific purpose (including decomposition).
Summer	Skills showcase: Mars Rover 2	Creating Media: Stop Motion Animation
Year 5	- To understand that bit patterns represent images as pixels. - To understand that the data for digital images can be compressed. - To know the difference between ROM and RAM. - To understand various techniques that will improve the design of a 3D object (using CAD software).	- Decomposition of an idea is important when creating stop-motion animations. - Stop-motion animation is filmed one frame at a time using models and with tiny changes between each photograph. - Editing is an important feature of making and improving a stop-motion animation.