| Year 3/4 Computing – 2 year rolling program | |
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| **Year 1** | **Year 2** |

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| **Autumn 1** | **Online Safety**<br>• CEOPs online safety video 'Play, Like, Share'<br>• Recognise uncomfortable feelings, privacy settings, posting videos, informing appropriate adults, identify suspicious behaviour.<br><br>**Computer science**<br>• Identify the range of parts that make up a computer | **Online Safety**<br>• Communicating safely online, cyberbullying, plagiarism, strong passwords, safe online profile, use search engines accurately.<br><br>**Computer literacy**<br>• Word processing |
| **Autumn 2** | **Computer literacy**<br>• Power Point presentations | **Computer science – Connecting Computers**<br>• Explain how digital devices function, identify input and output devices, explain how a computer network can be used to share information, recognise the physical components of a network. |
| **Spring 1** | **Scratch: finding & correcting bugs in programs** (3.2)<br>• Explain how scripts work, find and correct errors in them, and explore creative ways of improving them. Recognise some common types of programming error, and practise solving problems through logical thinking. | **Scratch: quizzes and questions** (T.4)<br>• write and debug programs that accomplish specific goals by creating a quiz question, create a sequence of commands using the if-, then-, else- commands, work with variables, include a scoring system. |
| **Spring 2** | **Scratch: programming an animation** (3.1)<br>• Create an animated cartoon using characters they design. Use paint tools to create background and characters, translate a storyboard into a series of scripted instructions. | **Scratch: prototyping an interactive toy** (4.2)<br>• design a simple toy that incorporates sensors and outputs and then create an on-screen prototype of their toy in Scratch. |
| **Summer 1** | **Communicating safely on the internet** (3.5)<br>• develop a basic understanding of how e-mail works and gain skills in using emails | **Producing film / digital imagery** (3.3)<br>• gain skills in shooting live video, such as framing, holding camera, reviewing, and editing |
| **Summer 2** | **Sphero: controlling a floor robot** (KS2)<br>• Apply understanding of computing to program floor robot, develop their control of robots through different activities and the use of different mediums. | **Collecting and analysing data** (3.6)<br>• understand some elements of survey design and use charts to analyse data. |

**WW2 Code Crackers**
• encrypt and decrypt messages
• use internet to search for information
• gain skills in shooting live video, such as framing, holding camera, reviewing and editing


**Scratch: complete multiple short set tasks** (T.4)
presents children with a set of challenges to complete using Scratch, open-ended tasks for children to undertake, hints are included for supporting less-confident coders.

| | Year 1 | Year 2 |
|---|---|---|
| **Autumn 1** | **Online Safety**<br>• CEOPs online safety video 'Play, Like, Share'<br>• Recognise uncomfortable feelings, privacy settings, posting videos, informing appropriate adults, identify suspicious behaviour.<br><br>**Computer science**<br>• Identify the range of parts that make up a computer. | **Online Safety**<br>• Understand online relationships, cyberbullying, strong passwords, citations, identifying secure websites, identifying spam emails, recognise edited photos online.<br><br>**Computer literacy**<br>• Word processing |
| **Autumn 2** | **Computer literacy**<br>• Spreadsheets | **Computer science – Sharing Information**<br>• Recognise the role of computer systems, how information is transferred over the Internet, sharing information online lets people in different places work together, share an online project. |
| **Spring 1** | **Kodu: programming and construction** (T.6)<br>• introduces programming with Kodu, a simple visual programming language made specifically for creating games, visual icons are added together like building blocks to form instructions and game environments. | **Scratch: Combining geometry and art**<br>• develop an appreciation of the links between geometry and art, use Scratch to create different algorithms for different regular polygons and then use them to create a pattern. |
| **Spring 2** | **Scratch: programming an animated story** (T.6)<br>• develop skills in writing algorithms as well as editing and debugging existing codes. New skills are introduced to structure code and animate characters and scenes, gradually building to create a short, animated story. | **Scratch: develop an interactive game** (5.1)<br>• Plan a simple computer game, design characters and backgrounds, and create a working prototype, which they develop further based on feedback they receive. |
| **Summer 1** | **Internet research and Webpage design** (T.5)<br>• create a webpage with layout of their choosing which includes images and links to other webpages | **Producing digital music / sound** (T.5)<br>• use software and digital devices for recording sound based around the theme of a Radio Station. |
| **Summer 2** | **Sphero: controlling a floor robot** (KS2)<br>• Apply understanding of computing to program floor robot, develop their control of robots through different activities and the use of different mediums. | **3D modelling** (T.5)<br>• Extend drawing skills to create 3D models based on using the software SketchUp Make, learn how to create simple and complex 3D models, add detail and manipulate 3D models using a variety of tools. |

(Title row: **Year 5/6 Computing – 2 year rolling program**)

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