

| Key Stage 2 National Curriculum Objectives                                                                                                                                                                                                                                               |                                                                                    |                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Computer Science                                                                                                                                                                                                                                                                         | Information Technology                                                             | Digital Literacy                                                                                                                  |
| <i>(How computers and computer systems work and how they are designed and programmed)</i>                                                                                                                                                                                                | <i>(the purposeful use of existing programs to develop products and solutions)</i> | <i>(the skills, knowledge and understanding needed in order to participate fully and safely in an increasingly digital world)</i> |
| A - design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts                                                                                                         |                                                                                    |                                                                                                                                   |
| B - use sequence, selection, and repetition in programs; work with variables and various forms of input and output                                                                                                                                                                       |                                                                                    |                                                                                                                                   |
| C - use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs                                                                                                                                                         |                                                                                    |                                                                                                                                   |
| D - 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                                                                                       |                                                                                    |                                                                                                                                   |
| E - use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content                                                                                                                                                 |                                                                                    |                                                                                                                                   |
| F - 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 |                                                                                    |                                                                                                                                   |
| G - use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact                                                                                                              |                                                                                    |                                                                                                                                   |

Long Term Overview: Year 3/4

| Cycle                  |    | Term 1                                                        | Term 2                                                 | Term 3                                                             | Term 4                                                | Term 5                                                | Term 6                                                                              |
|------------------------|----|---------------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------|
| A<br>2023<br>-<br>2024 | CS | Y4 Computer Systems and Networks- The internet<br>BDEFG       |                                                        | Programming B:<br>(Yr 3)<br>Events and actions in programs<br>ABCF |                                                       |                                                       | Programming B:<br>(Yr 4)<br>Repetition in games (note changes in L1 slides)<br>ABCF |
|                        | IT |                                                               | Creating Media:<br>(Yr 3)<br>Stop-frame Animation<br>F |                                                                    | Creating Media:<br>(Yr 4)<br>Photo editing<br>EFG     | Data and Information:<br>(Yr 4)<br>Data Logging<br>BF |                                                                                     |
| B<br>2024<br>-<br>2025 | CS | Y3 Computer Systems and Networks- Connecting computers<br>BDF |                                                        | Y3 Programming A:<br>Sequencing Sounds<br>ABCF                     |                                                       |                                                       | Y4 Programming A:<br>Repetition in shapes<br>ABCF                                   |
|                        | IT |                                                               | Y4 Creating Media:<br>Audio Production<br>EFG          |                                                                    | Y3 Data and Information:<br>Branching databases<br>FG | Y3 Creating Media:<br>Desktop Publishing<br>EF        |                                                                                     |

## Software and hardware overview

Requirements for pupils – below

|                                    | Desktop or laptop | Chromebook | Tablet | Software or hardware                |
|------------------------------------|-------------------|------------|--------|-------------------------------------|
| 3.1 Connecting computers           | ✓                 | ●          | ●      | Painting program (any)              |
| 3.2 Stop-frame animation           | ●                 | ●          | ✓      | iMotion (app for iOS)               |
| 3.3 Sequencing sounds              | ✓                 | ✓          | ●      | Scratch                             |
| 3.4 Branching databases            | ✓                 | ✓          | ●      | j2data Branch and Pictogram         |
| 3.5 Desktop publishing             | ✓                 | ●          | ●      | Canva.com                           |
| 3.6 Events and actions in programs | ✓                 | ✓          | ●      | Scratch                             |
| 4.1 The internet                   | ✓                 | ✓          | ✓      | Various websites                    |
| 4.2 Audio production               | ✓                 |            |        | Audacity                            |
| 4.3 Repetition in shapes           | ✓                 | ●          | ●      | FMSLogo                             |
| 4.4 Data logging                   | ✓                 | +          | +      | Data logger and associated software |
| 4.5 Photo editing                  | ✓                 | ●          |        | Paint.NET (for Microsoft Windows)   |
| 4.6 Repetition in games            | ✓                 | ✓          | ●      | Scratch                             |

✓ Used for the unit – reflected in screenshots   ● Could be used as an alternative   + Data loggers that work with Chromebooks or tablets are available. Check with suppliers.