Computing – Year 4

Autumn 1

Computer Systems and Networks - The internet	- The World Wide Web is part of the internet where we can visit webpages and websites (WWW). - Web browsers (Google Chrome, Safari, Firefox, Internet Explorer) You need these to access the World Wide Web. - We can communicate over the internet and World Wide Web but we must do so responsibly.

Autumn 2

Creating Media - Photo Editing	- Digital images can be manipulated for different purposes. - Digital images can be edited. - Composition in photography is the arrangement of the different elements in a photo. - Cropping can reframe a photograph by deleting one or more sides of the image. - Cropping can be used to: focus on a particular part of an image, recentre an image, remove aspects of an image or change the topic of an image. - The colour and light used in a photo can be altered to change the way people think and feel about the image. - Cloning is a process of using one area of a photo to change another area. - Retouching an image means focusing on a small part of the image and removing it to improve how the photo looks. - A 'composite' image is an image made up of different parts. Two or more images can be combined using the tools: select, copy, paste, move and resize.

Spring 1

Data - Data Logging	**Data** is information stored on a computer. - Technology can be used to sort data. **Input**: Data provided to a computer system, such as via a keyboard, mouse, microphone, camera or physical sensors such as data loggers. - Data Loggers collects 'data points' from sensors over time - Analysing examine (something) in detail to explain and interpret data and information.

Spring 2

Programming - Repetition in shapes	- An **algorithm** is a precise set of ordered instructions which can be turned into code **Coding** is how we communicate with computers. Code tells a computer what actions to take. - A **process** is when a computer follows a set of instructions using the data that has been input. **Sequence**: steps carried out in order. **Selection**: A decision or a question **Repetition** – A repeat in code, repeating a sequence of instructions a certain number of times.

Summer 1

Creating Media – Audio Editing	**Software** is the programme or operating system that a computer uses. **Hardware** is the physical components of a computer. **Input**: Data provided to a computer system, such as via a keyboard, mouse, microphone, camera or physical sensors. **Outputs** The information produced by a computer system for its user; items on a screen, speakers, lights. **Evaluating** is to judge or calculate the quality, importance, amount, or value of something. - You can create audio with computers such as a podcast.

Summer 2

Programming –Repetition in Games	- An **algorithm** is a precise set of ordered instructions which can be turned into code **Coding** is how we communicate with computers. Code tells a computer what actions to take. **Command** is a specific instruction given to a computer application to perform a task. **Repetition** is where actions or commands in programming are repeated. - The repeating commands can also be referred to as a 'loop'.

	o **Infinite loops:** Loops that can be repeated indefinitely o **Count-controlled loops**: loops that repeat for a set number of times • **Bug**: A mistake in the code. • **Debugging** is checking the code in a computer program to ensure it works and changing it if it doesn't.