Computing Overview 2023-2024

The computing curriculum uses a spiral curriculum. This means that each of the themes is revisited regularly (at least once in each year group), and pupils revisit each theme through a new unit that consolidates and builds on prior learning within that theme.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Themes	Computing systems and networks	Creating media	Programming A	Data and information	Creating media	Programming B
Year 3	**Connecting computers** *Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.*	**Stop-frame animation** *Capturing and editing digital still images to produce a stop-frame animation that tells a story.*	**Sequencing sounds** *Creating sequences in a block-based programming language to make music.*	**Branching databases** *Building and using branching databases to group objects using yes/no questions.*	**Desktop publishing** *Creating documents by modifying text, images, and page layouts for a specified purpose.*	**Events and actions in programs** *Writing algorithms and programs that use a range of events to trigger sequences of actions.*
Year 4	**The internet** *Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.*	**Audio production** *Capturing and editing audio to produce a podcast, ensuring that copyright is considered.*	**Repetition in shapes** *Using a text-based programming language to explore count-controlled loops when drawing shapes.*	**Data logging** *Recognising how and why data is collected over time, before using data loggers to carry out an investigation.*	**Photo editing** *Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.*	**Repetition in games** *Using a block-based programming language to explore count-controlled and infinite loops when creating a game.*
Year 5	**Systems and searching** *Recognising IT systems in the world and how some can enable searching on the internet.*	**Video production** *Planning, capturing, and editing video to produce a short film.*	**Selection in physical computing** *Exploring conditions and selection using a programmable microcontroller.*	**Flat-file databases** *Using a database to order data and create charts to answer questions.*	**Introduction to vector graphics** *Creating images in a drawing program by using layers and groups of objects.*	**Selection in quizzes** *Exploring selection in programming to design and code an interactive quiz.*
Year 6	**Communication and collaboration** *Exploring how data is transferred by working collaboratively online.*	**Webpage creation** *Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.*	**Variables in games** *Exploring variables when designing and coding a game.*	**Introduction to spreadsheets** *Answering questions by using spreadsheets to organise and calculate data.*	**3D modelling** *Planning, developing, and evaluating 3D computer models of physical objects.*	**Sensing movement** *Designing and coding a project that captures inputs from a physical device.*

We incorporate physical computing into our curriculum as we understand that it plays a key role in motivating learners, as well as helping them understand the ways in which we use computing to interact with the world. In years 5 and 6 we program Micro-bits and Crumbles to perform certain tasks such as light up LEDs or run motors.