Updated 2022-23

CURRICULUM SUMMARY Computing – Years 3-6 Overview

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

Our rationale for sequencing the subject in this way

Whitehall Junior School have adopted the Teach Computing curriculum. The units have been planned as 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. Each lesson is sequenced so that it builds on the learning from the previous lesson, and where appropriate, activities are scaffolded so that all pupils can succeed and thrive. Scaffolded activities provide pupils with extra resources, such as visual prompts, to reach the same learning goals as the rest of the class. Exploratory tasks foster a deeper understanding of a concept, encouraging pupils to apply their learning in different contexts and make connections with other learning experiences.

The curriculum is underpinned with the latest pedagogical principles such as 'unplug, unpack, repack' where children can build understanding of computing concepts through drama activities and games before applying them to their learning.

The curriculum is rich, relevant and imaginative. From the latest creative software to physical computing resources, children have the opportunity to get 'hands on' with technology and create work they can be proud of.

Formative and summative assessment are planned throughout the units, and aid the teachers to evaluate the progress made by children, as well as next steps needed to move their learning forward.