COLLINGWOOD PRIMARY SCHOOL

Computing @ Collingwood Primary School

Our Computing curriculum is taught through three key strands: Coding and Programming, Digital Literacy, and Using Technology Creatively. It aims to develop problem-solving skills, logical thinking, and confidence in using digital tools. Pupils are encouraged to explore how technology works, how to use it responsibly, and how it can be applied to create, communicate, and innovate. Through practical tasks and projects, they learn to design solutions, debug programs, and present their ideas effectively. Our curriculum seeks to inspire learners to become confident, independent, and responsible digital citizens, equipped with skills for the modern world.

Retrieval Practice

Low-stake quizzes for long term memory
Varied teaching and learning activities
Thoughtful sequencing of content
Specific teaching of vocabulary

Content and Sequencing

EYFS: In EYFS, children begin to explore technology and how it works through action and reaction toys, remote-controlled devices, and simple mechanisms using cogs. They learn to use computers, tablets, and interactive whiteboards, developing basic mouse and keyboard skills to play games, type their names, and take photos or videos. Children are introduced to digital platforms such as Purple Mash and Mini Mash, learning to navigate them confidently. Throughout their activities, they are supported to follow instructions, use technology safely, and understand everyday devices, building a foundation for creativity, curiosity, and responsible digital use.

Year 1: In Year 1, pupils begin by learning how to keep safe while exploring technology and discovering how digital devices work. They move on to exploring digital sound and creating their own multimedia stories, developing their understanding of how to combine different digital tools. Pupils are introduced to simple programming through action algorithms and learning to control directions, as well as experiencing an introduction to digital art. Throughout these activities, they are encouraged to experiment, follow instructions, and share their ideas, building confidence and familiarity with using technology creatively and safely.

Year 2: In Year 2, pupils build on their previous learning by exploring different ways of writing and presenting ideas digitally. They are introduced to animation and begin programming using Scratch Jr, developing their understanding of sequences and commands. Pupils continue to learn how to keep safe online while creating their own digital content. They also explore programming with Logo and develop skills in finding, selecting, and presenting information using technology. Throughout these activities, pupils are encouraged to experiment, problem-solve, and share their work with others, increasing their confidence as young digital creators.

Essentials

Code
This concept involves developing an understanding of instructions, logic and sequences.

Connect
This concept involves developing an understanding of how to safely connect with others.

Communicate
This concept involves using apps to communicate one's ideas.

Collect
This concept involves developing an understanding of databases and their uses.

Assessment and Progress

Units of work are carefully sequenced; making connections with prior knowledge, concepts and vocabulary

Regular formative assessment and immediate feedback ensures misconceptions are addressed and learning is effective.

Effective questioning and higher order thinking are embedded within all learning experiences.

Adaptive teaching strategies ensure individualised instruction; supporting the needs of all learners

	Year 3: In Year 3, pupils continue to develop their digital literacy and online safety skills, learning how to use technology responsibly. They focus on communication and collaboration, using digital tools to work together and share ideas. Pupils build on their programming knowledge by starting to use Scratch and exploring the creation of simple games and animations. They also investigate databases, developing skills in organising and analysing information, and explore digital imagery through patterns in nature. Pupils are introduced to Kodu, gaining experience in creating interactive worlds. Across these activities, they are encouraged to think logically, experiment creatively, and develop confidence in their digital skills. **Year 4:** In Year 4, pupils continue to develop their digital literacy and online safety skills, learning how to search the web effectively and evaluate information. They extend their programming skills by creating Scratch maze games and begin exploring 3D design. Pupils undertake an independent project in Kodu, applying their knowledge to design interactive worlds, and engage in computational thinking through problem-solving challenges such as "Alien Contact." Across these activities, they are encouraged to experiment, think logically, and take creative ownership of their digital projects. **Year 5**: In Year 5, pupils build on their previous learning in digital literacy and online safety while undertaking increasingly complex projects. They create retro-style games and develop collaborative websites, learning to work together and manage digital content responsibly. Pupils explore manipulating sound, gain an understanding of how computers work, and begin programming using LEGO Robotics. Throughout these activities, they are encouraged to develop resilience, problem-solving skills, and creativity in applying technology to real-world challenges. **Year 6:** In Year 6, pupils consolidate their digital literacy and online safety knowledge while developing more advanced technical skills. They become confident using spreadsheets, creating instructional videos, and programming with the BBC micro:bit. Pupils explore manipulating images and gain a deeper understanding of how the internet works. Across these experiences, they are encouraged to think critically, work independently, and apply their computing skills creatively and responsibly, preparing them for future digital learning.	Opportunities for revisiting content and mastery learning/teaching for mastery