Intent

Computing skills are a major factor in enabling children to be confident, creative and independent learners and it is our intention that children have every opportunity available to allow them to achieve this.

We intend to build a computing curriculum that develops pupils' learning and results in the acquisition of knowledge of the world around them and ensures all pupils can understand and apply the fundamental principles and concepts of computer science. This includes: abstraction, logic, algorithms and data representation, analysing problems in computational terms, and repeated practical experience of writing computer programs in order to solve such problems.

We intend to build a computing curriculum that prepares pupils to live safely in an increasingly digital British society where pupils can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.

At New End our coverage of the Computing Curriculum is Coding led.

We want children to become digital creators not passive consumers of technology.
We recognise that learning to code has massive benefits in developing thinking skills.
We therefore place creative coding at the heart of our approach to Computing.

Implementation

Teaching and learning facilitates progression across all key stages within the strands of digital literacy, information technology and computer science.

Children have access to the hardware (computers, tablets, programmable equipment) and software that they need in order to develop knowledge and skills of digital systems and their applications.

Children have the opportunity to explore and respond to key issues such as digital communication, cyberbullying, online safety, security, plagiarism and social media.

We have a specialist Coding/Computing teacher working with all Year Groups from R to Y6.

Our coding and computing curriculum continues to evolve as our pupils become more experienced and proficient coders. We do not think it is helpful to fix topics in certain year groups.

Please see curriculum overview below.

We aim to cover all aspects of digital literacy through coding. For example, instead of teaching pupils to create digital images in isolation, we teach them to create graphics to use within a game. Another example is instead of creating a typed document about their favourite books, they will create an interactive app about their favourite books using text and image (made with code).

Impact

Our children will:

- Understand the importance of computing and coding in their world and their future.
- Understand how they can use code to create digital artefacts, and to solve problems.
- Show a clear progression of technical skills across all areas of the Computing curriculum, Computer Science, Information Technology and Digital Literacy.
- Be aware of online safety issues and be able to deal with any problems they may encounter.
- Meet the end of key stage expectations in the National Curriculum for Computing.

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
EYFS	Moving things around	Simple sequences of code	Drawing and moving with code	Using simple robots	Changing directions	Using a simple repeat loop
Year 1	Sequences of code	Adding parameters to code blocks	Use repeat loops	Moving and inputs - mouse & keyboard	Simple animation	Coding a very simple game
Year 2	Coding 'collecting games'	Coding 'avoiding games'	Simple app making	Coding robots	Multiple sprites & collisions	Introducing variables
Year 3	Introducing Google Classroom	Introducing Python	App making	Introducing the Microbit	Coding catching games	Coding and conditionals
Year 4	Basic skills with Google Classroom	Coding with Scratch	App making and simple HTML	Microbits and simple outputs	Python loops and angles	Coding Scrolling games
Year 5	Developing skills with Google Classroom	Python, coordinates	Coding with HTML	Further coding with Scratch	Microbits and circuits	Coding platform games
Year 6	Advanced skills with Google Classroom	Python, random numbers and colour mixing	Inputting information and data via HTML	Computer Science and electronics	Coding games with simulated gravity	Advanced game development