Newhall Junior School

Computing

A Whole School Approach to developing Computing education.

"A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world." (NC 2014)

Intent

Our Computing Curriculum aims to create digitally literate pupils that can make safe, informed choices about how they use, communicate, create and problem solve with digital technology and technological devices. Allowing them to build their knowledge, understanding and skills for continuous lifelong learning. Our Computing Curriculum ensures that pupils are able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in an ever-growing digital world. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content.

The computational knowledge and skills developed by each child will enable them to be prepared to live in a digital world safely but also provide them with a secure foundation to study computing beyond Key Stage Two. Children will leave Newhall Juniors understanding how to use technology safely, respectfully and responsibly, as well as having the experience to recognise acceptable and unacceptable behaviour. This is essential in preparing them for independence in the digital world.

Implementation

To enable the children to become safe, responsible, creative, curious, logical and competent learners the computing curriculum is decomposed into six Learning Areas: e-safety; programming; document creation; data handling; digital content creation and computing skills. As children move through Newhall Juniors they are introduced to new knowledge and skills within each Area of Learning (AoL). Each academic year these are revisited allowing each child to retrieve, consolidate and build upon prior knowledge in a systematic and structured way.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y3	E-Safety – Smart Crew	Computer Skills – Basic Skills	Document Creation – PowerPoint	Programming – Introduction to Coding	Digital Content Creation – Photography	Programming – Scratch Skills
Y4	E-Safety – Play, Like, Share Lvl 1	Computer Skills – Protocols	Document Creation - Publisher	Programming – Scratch Maze	Digital Content Creation – Video Trailers	Programming – Logo Shapes 1
Y5	E-Safety - Play, Like, Share Lvl 2	Document Creation - Word	Programming – Scratch Quiz	Digital Content Creation – Stop Go Animation	Programming – Logo Shapes 2	Data Handling – Spreadsheets Introduction
Y6	E-Safety – Be Internet Legends	Document Creation - Webpage	Programming – Scratch Levels	Digital Content Creation – Green Screen	Programming – Microbits	Data Handling – Spreadsheets

Each AoL is taught using carefully designed units that have been created to meet the specific needs of pupils at Newhall Juniors. Together the units ensure coverage of the National Curriculum and progression of key computing knowledge and skills. They support each child's acquisition of knowledge, through the use of key concepts, terms, vocabulary and by providing opportunities to build a shared and consistent understanding.

Each lesson, within a unit, is sequenced so that it builds on the learning from the previous lesson, and where appropriate, activities are scaffolded so that every child can succeed and thrive. Scaffolded activities provide children with smaller chunks of knowledge; question prompts; modelling

and spoken commentary to make decision making choices explicit, so they can reach the same learning goals as the rest of the class. Children are also given the opportunity to foster a deeper understanding of a concept, by applying their learning in different contexts and by make connections with other learning experiences.

Through the application of Computing in the wider curriculum, children's learning is consolidated and enriched. There will be a direct transfer of skills as children utilise their knowledge in an ever-expanding variety of situations in their Learning Journey.

Impact

It is our aim that the impact of our carefully crafted curriculum design will lead to outstanding progress over time relative to each child's individual starting points and their progression of skills. Our vision is for our ambitious Computing curriculum is to equip the children at Newhall Juniors to be enthusiastic learners, computational thinkers and problem solvers who are aware of the benefits and risks of using technology. We strive to evidence how much our children enjoy and engage with our Computing curriculum in a range of ways: portfolios of work, pupil voice and teacher assessment. We ensure that all children, including those who are achieving well, as well as those who need additional support, are identified, and additional provision and strategies are planned in and discussed with class teachers to ensure successful outcomes for all.