

Intent, Implementation and Impact

Intent

In line with the 2014 National Curriculum for Computing, our aim is to provide a quality computing education which equips children to use computational thinking and creativity to understand and change the modern world. The curriculum will teach children key knowledge about how computers and computer systems work, and how they are designed and programmed. Learners will have the opportunity to gain an understanding of computational systems of all kinds, whether or not they include computers.

By the time they leave Fairfields, children will have gained key knowledge and skills in the three main areas of the computing curriculum: computer science (programming and understanding how digital systems work), information technology (using computer systems to store, retrieve and send information) and digital literacy (evaluating digital content and using technology safely and respectfully online). The objectives within each strand support the development of learning across the key stages, ensuring a solid grounding for future learning and beyond.

Implementation

At Fairfields, computing is taught weekly. Teachers use the [iCompute](#) scheme, a highly acclaimed primary computing scheme of work, offering step-by-step computing lesson plans, comprehensive computing resources and computing assessment for computing in the EYFS, KS1 computing and KS2 computing. We have a computing suite of 32 desktop PC's, 6 iPads in each classroom starting in yr2 up to yr6 and one class set of 31 iPads to ensure that all year groups have the opportunity to use a range of devices and programs for many purposes across the wider curriculum, as well as in discrete computing lessons. Employing cross-curricular links motivates pupils and supports them to make connections and remember the steps they have been taught.

The implementation of the curriculum also ensures a balanced coverage of computer science, information technology and digital literacy. The children will have experiences of all three strands in each year group but the subject knowledge imparted becomes increasingly specific and in-depth as children progress through the

school with more complex skills being taught, thus ensuring that learning is built upon. For example, children in Key Stage 1 learn what algorithms are, which leads them to the design stage of programming in Key Stage 2, where they design, write and debug programs, explaining the thinking behind their algorithms. Within our school, e-Safety is taught to the pupils using the scheme of work from South West Grid for Learning (SWGfL), which sits within the iCompute scheme of work.

Lessons are adapted appropriately to meet the needs of all pupils and to ensure an inclusive curriculum. Some of these adaptations may include: differentiated activities, adult support and mixed ability seating. Specialist equipment is provided where this is needed. Pupils are taught how to make effective use of the accessibility features within certain programs.

Impact

Our approach to the curriculum results in a fun, engaging, and quality computing education. Teachers assess pupils' progress throughout the topic and then record their progress at the end of each term. Pupils also evaluate their own work and receive feedback from the class. This evidence is used to feed into teachers' future planning, and as a topic-based approach continues to be developed, teachers are able to revisit misconceptions and knowledge gaps in computing when teaching other curriculum areas. This supports varied paces of learning and ensures all pupils make good progress.

Much of the subject-specific knowledge developed in our computing lessons equips pupils with experiences which will benefit them in secondary school, further education and future workplaces. From research methods, use of presentation and creative tools and critical thinking, computing at Fairfields gives children the building blocks that enable them to pursue a wide range of interests and vocations in the next stage of their lives.