Computing Curriculum Statement

Intent

In line with the 2014 National Curriculum for Computing, our aim is to provide a high-quality computing education which equips children to use computational thinking and creativity to understand and change the 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 Barleyhurst Park, 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). 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 Barleyhurst Park, computing is taught using a blocked curriculum approach. This ensures children are able to develop depth in their knowledge and skills over the duration of each of their computing topics, while also working towards an end goal. Each pair of classrooms is equipped with a set of laptops as well as a set of iPads to ensure 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, 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.

Impact

Our approach to the curriculum results in a fun, engaging, and high-quality computing education.

Much of the subject-specific knowledge developed in our computing lessons equip 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 Barleyhurst Park gives children the building blocks that enables them to pursue a wide range of interests and vocations in the next stage of their lives.

- Computing has a high profile at our school. Our children are confident using a wide range of hardware and software, and are diligent learners who value online safety and respect when communicating with one another.
- Children will have a secure and comprehensive knowledge of the implications of technology and digital systems. This is important in a society where technologies and digital trends are rapidly evolving.
- Through discussion and feedback, children talk enthusiastically about their computing lessons
- Children across the school articulate well about the potential risks of being online, and can talk about ways to keep safe.

If you were to walk into Computing lessons at Barleyhurst Park, you would see:
- Proficient users of technology who are able to work both independently and collaboratively.
- Computing hardware and software being utilised to enhance the learning outcomes of our children, across the curriculum.
- Clear progression in technical skills.
- Enthusiastic learners engaged in programming, animation, architectural design and preparing online safety presentations.