Computing at Hillesley

Intent

We believe that computing helps to prepare the children for life in 21st century Britain, encouraging children to develop a greater understanding of technology and the technological world around them.

Our computing curriculum has been specifically tailored to meet the unique context of our school. It is designed to be broad and balanced, providing all pupils with the opportunity to master their learning and deepen their knowledge, making sense and giving purpose as to why we learn about computing. It is our intention to provide pupils with a computing curriculum which will help them learn to change and transform our society, putting their faith into action.

Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. 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. Computing also ensures that pupils become digitally literate – 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 a digital world.

Implementation

At Hillesley our computing curriculum meets the requirements of the National Curriculum and is based on the NCCE's (**National Centre for Computing Education**) computing taxonomy to ensure comprehensive coverage of the subject. All learning outcomes can be described through a high-level taxonomy of ten strands, ordered alphabetically as follows: Algorithms, computer networks, computer systems, creating media, data and information, design and development, effective use of tools, impact of technology, programming and safety and security. Whilst all computing strands are present at all phases, they are not always taught explicitly.

We have a 2-year rolling programme of teaching units for our mixed-aged classes. These teaching units are based on a spiral curriculum. This means that each of the themes is revisited regularly (at least once in each year group), and pupils revisit each theme through a new unit that consolidates and builds on prior learning within that theme. This style of curriculum design ensures that children revisit previous learning so that a secure understanding is built, and connections can then be made to learning new knowledge and skills.

Our Early Years Foundation Stage children will have the opportunity to play and explore, participate in active learning and create and think critically through these seven areas of learning rather than subject areas:

- Understanding the World
- Literacy
- Physical Development
- Communication & Language

- Personal, Social and Emotional Development
- Physical Development
- Expressive Arts and Design

Our curriculum supports the needs of all pupils and so, where appropriate, activities may be adapted so that all pupils can succeed and thrive: this may involve providing pupils with extra resources, such as visual prompts, to reach the same learning goals as the rest of the class. We challenge more able pupils by providing open-ended tasks and/or opportunities to apply their knowledge and skills in different contexts and across the curriculum.

We are well-resourced with both iPads and laptops which allow us to teach computing effectively both discretely and in a cross-curricular way. Pupils also benefit from workshops such as the 'In The Net' online safety play and Safer Internet Day, which enhance their learning in computing.

Impact

Our computing education aims to develop a range of programming and technological skills that are transferable to other curriculum areas, including Science, Mathematics, English and History. As pupils progress through KS1 and KS2 children will become increasingly confident in:

- The application of their digital skills
- Becoming increasingly efficient and effective communicators, collaborators and analysts
- Showing imagination and creativity in their use of computing in different aspects of their learning and life beyond school
- E-safety and the risks involved when using the Internet

The impact of the computing curriculum offered at Hillesley Primary is assessed during lessons against the age-related expectations in computing for each year group. In doing so, we are able effectively plan next steps and ensure that the necessary support/challenge is provided for all children to develop a good understanding of the primary computing curriculum. Progress is reported to parents during Parents' Evenings and in each pupils' End of Year Report.

Monitoring of teaching and learning in computing is carried out by the headteacher and link governor in the form of:

- Lesson observations/learning walks
- Pupil discussions and interviewing the pupils about their learning (pupil voice)
- Monitoring of children's work
- Staff monitoring activities