Computing

Intent

Keyworth Primary knows how important Computing is in the modern world. In a society that is ever changing, Computing will undoubtedly play a major role in the lives of future generations. For better or for worse, it is almost impossible to avoid how paramount it is that we are all Computer literate.

For that reason, it is our school's aim to prepare children with the relevant skills and knowledge that is required to understand the three core areas of Computing (Computer Science, Information Technology and Digital Literacy) and to offer a broad and balanced approach to providing quality first teaching of this subject.

Computing is an integral part to a child's education and everyday life. Therefore, we intend to support our pupils to access and understand the core principles of this subject through engaging and cross-curricular opportunities.

The main teaching objectives for Computing at Keyworth Primary School are:

- To instil an enthusiasm and appreciation of Computing via engaging and well-planned lessons, allowing children to use their skills to create and develop new ideas.
- To develop a scheme of work, in conjunction with the National Curriculum, which provides progression and a breadth of knowledge across all year groups.
- To ensure that teaching staff continue to access the opportunities to attend subject relevant CPD in order to deliver sessions with confidence and to help identify areas in which they can use computational skills within a cross-curricular approach (as part of their termly topics).
- To identify real world examples and creative challenges in which pupils can explore and extend their understanding of the fundamental principles and concepts of Computing.
- To support children to develop and achieve as competent Computational Thinkers by integrating these core concepts and approaches across our whole school ethos.
- To ensure that pupils develop a respectful and responsible attitude towards using information and communication technology, especially with regards to their own and other's safety.
- To provide a safe space in which pupils can navigate and interact with the digital world, whilst exploring their own personal expression and identity.

Implementation

In order to achieve the outlined intentions, the Computing curriculum is continuously reviewed through monitoring and evaluation by the Subject Leader and Senior Leadership Team. Teachers demonstrate a high level of enthusiasm for the subject content and their expectations of the pupils are driven by the subject progression grids. These have been written with the three core areas of Computing in mind:

- Computer Science – the understanding of coding and programming across a range of physical devices and digital resources.

- Information Technology – the range of skills required to operate and manipulate specific programs, systems, and content.

- Digital Literacy – the knowledge required to use technology safely and to evaluate and react to any potential risks of the online/digital world.

The National Curriculum provides the basis for the progression grids and this content is then supplemented by additional resource banks, such as; Inkscape, SketchUp and Scratch. We also participate in 'Internet Safety Week' in which each class is provided with age appropriate texts and tasks. Cross-curricular opportunities are identified in order to ascertain links between termly topics and to ensure that Computing is not just seen as a standalone area. Staff are encouraged to share any gaps in their knowledge and skill sets to inform appropriate and individualised training/CPD.

In our teaching of Computing we endeavour to expose students to a variety of software, programs, and equipment in order to offer a range of appropriate challenges and experiences. Staff are provided with selected devices which they can explore within their classrooms and feedback from LA subject lead meetings is shared to ensure that we are using relevant and up-to date technologies. Specific vocabulary for each year group is outlined in the progression grids and this is regularly modelled by teachers within their lessons. Spaced repetition and chunking within the curriculum allows pupils to develop their recall of embedded knowledge and ensures that each year group works on an aspect of each the three areas of Computing. Sessions are adapted to meet the requirements of a specific cohort and lesson content is frequently reviewed by class teachers and the subject lead. Our schemes of work remain flexible and children share their thoughts on their 'computing learning journeys' to help enable sessions to be adapted to their interests and needs.

Impact

Within Computing we encourage a creative and collaborative environment in which pupils can learn to express and challenge themselves. The success of the curriculum itself will be assessed via the analysis of yearly progress data, conducting regular pupil voice sessions, lesson observations and skills audits. This will then inform future adaptions of the schemes of work and help to ensure that progression is evident throughout school.

In order to demonstrate that we have accomplished our aims, pupils at Keyworth Primary School should:

- Be enthusiastic and confident in their approach towards Computing.
- Present as competent and adaptable 'Computational Thinkers' who are able to use identified concepts and approaches in all of their learning.
- Be able to identify the source of problems and work with perseverance to 'debug' them.
- Create and evaluate their own project work.
- Have a secure understanding of the positive applications and specific risks associated with a broad range of digital technology.
- Transition to secondary school with a keen interest in the continued learning of this subject.