Work Hard – Be Kind

Intent, Implementation & Impact

I am a Computer Scientist

Intent:

I am a computer scientist. I study computers and computing, including their theoretical and algorithmic foundations, hardware and software, and their uses for processing information. As a computer scientist, I am developing innovative ways of exploring information, and what I am able to do with it: enhancing my own thinking skills through algorithms, logic, visualisation, precision, and abstraction. I understand that computational thinking involves and illuminates other disciplines and the collaboration of these are vital, when addressing the advances in technology, and the inventive ways to use it. I am interested in pushing the boundaries of invention and transformation, using technology to creatively solve problems around me.

At King's Oak Academy, every child is a Computer Scientists. We aim for children to be enthused by an expanding range of technology and be aware of the possibilities that it can provide. Children are to be provided with the knowledge that technology comes with its dangers and are equipped to confront these independently. Our curriculum will build across the Key Stages, incorporating skills from a variety of subjects, including Art, Mathematicians and Authors as well as encouraging our children to use their Topaz powers to communicate their learning effectively. As a school we celebrate our learning by giving children the chance to explore each other's learning, recognising its successes. This also allows for children to evaluate other's learning to improve their own. We aim for children to leave primary school being technically literate and able to stay safe and keep up with the digital world, not only in school, but in the outside world.

Implementation:

Children will learn through four strands: computer components and resultant hardware, computational thinking, digital literacy and e-safety. Children are encouraged to discuss the e-safety implications for each lesson as well as through Online Safety Week and explicit e-safety lessons. Children will learn that computers are electronic devices used for storing or processing data and how they can be used by inputting, storing, and outputting data. To do this, computer programs are written by coders and understanding that computers do not think and cannot make decisions by themselves, rather the software enables users to interact to give and receive data. Children will be given the opportunity to be digitally literate and understand how this means to have access to a broad range of practices and cultural resources that you are able to apply to digital tools. Computer Scientists is taught hourly, on a biweekly basis to support progression across year groups, with opportunities to use iPads as well as computers. We use a scheme 'Teach Computing' to support the delivery of computing, but teachers are encouraged to adapt this to our curriculum and to the needs of their class.

Impact:

Children at King's Oak Academy can use a variety of technology and know how to stay safe on each of these. They will know about the processes of technology, understanding the input and output of each device. Children will be able to reflect on each piece of learning and understanding where errors have been made in programmes and how to correct these. Teachers will present and assess learning through the presentation of online Floor books, showing children's contributions to discussions as well as the learning they have completed.