

## Computing



*"We need technology in every classroom and in every student's teacher's hand, because it is the pen and paper of our time, and it is the lens through which we experience much of our world."*

*David Warlick*

### Intent

Our aim at Bradfield Primary School is to give children a thorough and ambitious education in computing effectively equipping them to use technology to understand the ever-changing technological world. It is now more important than ever that children understand how to use technology positively, responsibly and safely and it is important that children see good models of this. Our curriculum enables children to understand computers and computer system, such as the internet, work and how they are designed and programmed. Our curriculum ensures that children have many opportunities for learners to apply their evolving knowledge imaginatively therefore enabling them to become fluent and creative in their mastery of computing. The curriculum also ensures that children know what to do if they have concerns about anything they have encountered online ensuring that they are safe, responsible and respectful when using the internet.

By the time children leave Bradfield Primary School, children will have gained key knowledge and skills in the three main strands of the National Curriculum. These strands are Computer Science (programming and understanding how digital systems work), Information Technology (using computer systems to create, store, retrieve and send information) and Digital Literacy (evaluating digital content and using technology safely and respectfully). This knowledge and understanding provides children with the firm foundations to promote future learning therefore allowing them to become active digital citizens in the modern world.

### Implementation

#### What computing looks like at Bradfield

- Computing is taught on a weekly basis supported by the Rising Stars, 'Switched On: Computing' scheme. This provides a starting point for each computing session.
- Teaching slides are provided to provide step by step instructions for tricky concepts that are taught and links are made throughout the curriculum to add interest and understanding.
- Knowledge and skills are mapped across each topic and year group to ensure systematic progression.
- The use of cross curricular links motivates and supports the connections and helps children to remember the steps that 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 experience of all three of these strands during each year.
- As 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 children design, write and debug programs, explaining the thinking behind their algorithms.

- Summative assessments take place throughout the year. Teachers use this information to inform future teaching and learning; ensuring children are supported and/or challenged appropriately and that any gaps in knowledge are addressed.
- Termly Standards Meetings with Governors and staff ensure that areas of strength and priorities for development within science are shared.

## **Impact**

Our approach to the curriculum at Bradfield Primary School results in an engaging and high-quality computing education. The quality of learning is evident through discussion during Talk About Learning sessions (TAL). These demonstrate that children can share and evaluate their learning. This evidence is used to feed into future planning allowing teachers to revisit misconceptions and knowledge gaps in computing therefore ensuring that children make good progress throughout the school. Much of the subject-specific knowledge developed during our computing sessions equips children with the experiences that will benefit them as they move to secondary school, further education and future places of work.