

Intent, Implementation, and Impact of Computing at Booth Wood Primary School



Introduction

Intent

At Booth Wood we aim to:

- Provide a broad, balanced, challenging, and enjoyable curriculum for all pupils.
- Develop pupil's computational thinking skills that will benefit them throughout their lives.
- Meet the requirements of the national curriculum programmes of study for computing at Key Stage 1 and 2.
- To respond to new developments in technology.
- To equip pupils with the confidence and skills to use digital tools and technologies throughout their lives.
- To enhance and enrich learning in other areas of the curriculum using IT and computing.
- To develop the understanding of how to use computers and digital tools safely and responsibly.

We believe that IT, computer science and digital literacy are essential life skills that are necessary to fully participate in the modern digital world. These skills allow children to become creators of digital content rather than simply consumers of it and provides access to a rich and varied source of information and content. As well as this, it allows our pupils to communicate and present information in new ways; thereby further developing our pupils understanding. Furthermore, technology and computer science can motivate and enthuse pupils as it offers opportunities for communication and collaboration through group working both inside and outside of school and has the flexibility to meet the individual needs and abilities of each pupil.

Implementation

The acquisition of key Computing knowledge is an integral part of our curriculum. Each child completes a start of unit assessment that they can then revisit at the end of a unit to reivew what they have learnt and how their knowledge of the subject has developed. In addition, where appropriate, knowledge mats are used to support children and vocabulary mats are provided to ensure that all children can use the correct vocabulary when taking part in discussions.

Each lesson has a clear focus, and the 'Teach Computing' scheme provides detailed lesson plans that contain information such as: learning objectives; key vocabulary for that lesson; an opportunity for teachers to use tools and applications prior to the lesson and a detailed overview of the lesson activities. In addition, it provides teachers with the opportunity to address misconceptions that their class may have. Throughout each unit the children complete a range of tasks, whether digital or unplugged, that builds on their prior knowledge of the subject whilst revisiting learning from previous years. At Booth Wood we also integrate Computing into every lesson and use IT (iPads – the children's 'digital pencil case') to enhance our children's education by providing them with access to a range of supportive documents, websites, and video links.

Teaching and Learning

At Booth Wood we follow the Teach Computing scheme of work.

At Booth Wood teaching and learning in Computing is underpinned by the skills and knowledge that children need to develop as they move throughout each year group. Each child is given the opportunity to recall previous learning as this enables them to continually transfer their knowledge into their long-term memory whilst building on this with the new lesson materials.

Information Technology

Information technology is about the use of computers for functional purposes. Whether this is to collect and present data, to research a topic, or to collaborate and communicate with others. This stand of the Computing curriculum is a part of every lesson as the children use their iPads to research, create results for their data collection and collaborate with their peers or teachers via numerous websites or applications. Information technology is scaffolded by teachers throughout the school and all children are shown how: to create tables; to use shortcuts on their device; the internet functions and finds results for them; to access information safely; to keep themselves safe online; to report a concern that they have about something they have seen online. All children should be using Information Technology to seek information, analyse and present data and to present information as well.

Digital Literacy

Digital literacy is the ability to use information and communication technologies to find, evaluate, create, and communicate information through cognitive and technical skills. At Booth Wood, our children use a plethora of technology to support them in creating presentations, written reports, short movies, audio clips and much more. All of this is achieved whilst continually reminding our pupils how to use technology safely and how they can report any concerns that they have. When creating their digital work, they are prompted by staff to explain how they have been able to meet their desired outcome and what steps were used. This enables our pupils to think deeper about how they can meet their desired outcome and provides them with the opportunity to share their thinking with staff and peers.

Computer Science

Computer science is the understanding of how technology works, the functions of the internet, programming and coding robotics, and the structure of networks. At Booth Wood, we use a range of applications and websites that enables our children to explore computer science in a progressive and accessible way. Our children study: what algorithms are; how we can sequence our code; how variables can be used to make our code run smoothly; and to break code and programmes down into smaller parts. We use Spheros, iPads and other electronic devices to ensure that our children are exploring a range of technology that shows them physical representations of their programmes and code.

Impact

Progress for Computing is measured through a child's ability to know more, remember more, and explain or demonstrate more. This is measured in different ways throughout the units. Some assessments are summative, some formative. The use of key questions ensures that opportunities are built into the lessons for continuous assessment and allows teachers and support staff to provide on the spot support that addresses misconceptions. Children who feel confident in their Computing knowledge often share their ideas through the knowledge mats or even demonstrating to staff how they have found an alternate route to completing the task given.

At Booth Wood assessment is a process which is undertaken throughout a unit of study as pupils demonstrate their knowledge, skill and understanding required. Focused end of unit tasks which summarise learning ensure all pupils are given suitable opportunities to demonstrate their knowledge and understanding. Also, the children may complete a topic quiz at the beginning and end of each unit. This shows how much knowledge and understanding the children have gained.

Monitoring and Evaluation

The subject leader is responsible for monitoring the quality of education in Computing. This is achieved through lesson observations, pupil interviews, book scrutiny and CPD. Data is analysed at the end of each academic year and a subject report is written. All these inform the next year's action planning.