

Oak CE Primary School

Computing Curriculum Overview



Vision

In our ever-changing society, a high-quality Computing education is a necessity for the children at Oak. We know that high levels of digital literacy, computational thinking and a sense of enjoyment and success from using technology enable our children to understand and change our increasingly technical society. Effective instruction in Computing will allow our children to navigate the world proficiently, cultivate and communicate their ideas, and afford them the transferrable skills necessary for life in modern Britain and the future workplace.

Our curriculum is acutely aligned to the EYFS Framework and the National Curriculum and has considered the capabilities and needs of our setting.

We teach our children to:

1. Understand and the fundamental principles and concepts of computer science
2. Analyse problems and write programs to solve these
3. Evaluate and apply information technology and analytically solve problems
4. Become responsible, competent, confident and creative users of information and communication technology
5. Ensure they have an acute awareness of how to be safe online

All of our learning sequences teach progressive knowledge and skills, through the core elements of Computing:



Teaching and Learning

At Oak, Computing is taught weekly in Key Stage One and Two and within the provision through exploration within EYFS. In addition to this, purposeful opportunities to apply computing skills are provided within the curriculum as well as instances for learning to be communicated through technology. Inherent to all units of learning, are the core elements of Computing and a purposeful context for technological enquiry and use. Our children are given opportunities to access and use a wide range of hardware, software and programs; develop their digital competence and literacy; develop their understanding of appropriate use of technology, and particularly their online behaviour. It

is crucial that they learn to balance the benefits offered by technology with a critical awareness of their own and other's online behaviour, and develop effective strategies for staying safe and making a positive contribution online. Online Safety is an integral part of our computing curriculum and helps children focus on the key aspects of online education which will support them to live knowledgeably, responsibly and safely in a digital world. Safer internet day is an annual event which is celebrated in our school. In an ever-changing environment, we recognise the importance of keeping up-to-date with the needs of the children and aim to keep parents informed also.

Our computing curriculum is structured through the adoption of the Kapow Primary Computing Scheme. It is designed with the three strands of computer science, information technology and digital literacy which run throughout. The curriculum is organised into five key areas: computing systems and network, programming, creating media, data handling and online safety creating a critical route through which pupils can develop their computing knowledge and skills by revisiting and building on previous learning in different contexts. Knowledge organisers are available for children if needed. Specific language is used in lessons and high-quality resources enhance children's proficiency.

Learning outcomes are documented using a variety of mediums such as written and digital composition which will be saved on the computers or in a class folder. Due to the practical nature of computing, photographic evidence and screenshots may also be used.

Our sequence of learning is developed so that the computing key areas are often taught simultaneously across all year groups. This enables the processes of standardisation, moderation and assessment to be highly impactful; whilst at the same time providing the commonality necessary for leaders to offer strategic improvements to subject knowledge, pedagogical approach, differentiation and inclusion, and ambitious standards of teaching and learning.

Early Years Foundation Stage

Our youngest children come into contact with technology daily through the use of the interactive whiteboard in their classrooms, as well as being exposed to language relating to computing during their play. The problem solving of computational thinking links closely with the characteristics of effective learning. Through the continuous provision the children are able to develop their algorithmic thinking by saying, writing and following instructions. They are also able to develop their logical reasoning by making accurate predictions in their play. The children have the opportunity to explore technology in the role play area. Practitioners also model different computing skills to the children. They model how to research on a laptop and how to take a good photograph. All of these will prepare them for the computing curriculum in Year 1.

Inclusion

We are committed to ensuring children with SEND have access to all aspects of our subjects in lessons. We recognise that our children have differing levels of ability and employ a range of teaching strategies to both support and challenge children in order to access learning and reach their full potential. This includes the use of peer teaching, adult support and small group, scaffolded learning. We also provide technology (when required) to our SEN and EAL children within school to support their learning. All children receive the same curriculum offer. Our ambitious, broad and balanced curriculum is adapted to ensure learning for all our children is never narrowed. Computing resources via the Kapow curriculum and additional support are available and utilised where appropriate to further enhance first quality teaching.

Assessment

Our scheme allows teachers to assess the learning at the end of the lesson by using the success criteria to adequately assess if children have met the learning objective. Teachers ensure that regular formative assessment happens in lessons to track progress and identify gaps in children's skills. Regular feedback from teachers provide opportunities to not only address misconceptions but also deepen and challenge learning.