



Computing Curriculum Offer

Intent	<p>Purpose: Pupils will develop a strong base of knowledge to enable them to use computational thinking and creativity to understand and change the world in which they live. In order to become computer literate, pupils will develop key skills in computer science that will enable them to effectively understand how digital systems work and how to put this knowledge to use through programming. They will also use information technology to create programs, systems and a range of content. Pupils will learn how to access and navigate the digital world safely and through this, they will be able to access and participate in a digital world.</p> <p>Relationships: Pupils will use their computing knowledge and skills to support a range of other subjects across the curriculum. This will include opportunities to research a range of topics, develop their presentation skills, record and analyse data, and begin to use key skills in everyday life. Pupils will make explicit links between Computing, Mathematics, Science and Design and Technology.</p> <p>Impact: Pupils in EYFS will recognise that a range of technology is used in places such as homes and schools. They will select and use technology safely for specific purposes and develop confidence in using appropriate technology. In KS1 and KS2, pupils will be able to understand and apply the fundamental principles and concepts of computer science, information technology and digital literacy. Pupils will begin to analyse computational problems and be able to write and debug computer programs to solve these. They will develop a wide vocabulary of computing terminology to support their understanding of technology and its purpose. Pupils will understand the relationship between computing and the wider curriculum. They will be able to safely research, evaluate and apply information technology in order to become responsible, competent, creative and confident users of information and communication technology.</p> <p>Metacognition: Pupils will be able to select, use and combine a variety of software on a range of digital devices and choose technology to best fit a specific purpose. They will be able to use search technologies effectively and responsibly, identify unacceptable behaviour and understand when and where to seek help. Each computing unit of work will focus on a specific area of information technology, computer science or digital literacy, and internet safety will be paramount to all pupils' learning experiences.</p> <p>Experiences: We aim to ensure that pupils are exposed to a wide range of high-quality computing experiences that develop their understanding of the functional use of computer science and information technology, alongside providing opportunities to be creative and explore different digital devices and programs. Pupils will be able to use computer technology to support learning in a range of other subjects and understand the real-life importance of computing so that they can access and participate in a digital world. Where possible, external clubs/visits will be used to augment classroom learning by providing additional learning opportunities.</p>
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Implementation	<p>Computing in EYFS is predominantly practical and builds on existing knowledge, as many pupils already have access to technology, including gaming devices. Observations are recorded when appropriate. Pupils will explore the purpose of different technologies such as cameras, iPads, IWB and programmable toys and will learn how to use make a programmable toy move (Cubetto) by following instructions to make a simple program. By the end of EYFS, pupils will begin to choose technology for a specific purpose (e.g. camera/iPad for taking pictures, app for playing maths games, internet for information).</p> <p>In KS1 and KS2, computing has been carefully planned across the school to maximise impact, develop secure subject knowledge and make links with real-life usage alongside other areas of the curriculum, specifically science, mathematics and design and technology. In each year group, planning reinforces internet safety and each pupil signs the Acceptable Usage Policy for home and school. Planning then alternates between computer science, information technology and digital literacy objectives, developing skills by using and applying computing knowledge in a variety of ways. Key skills, such as programming, are sequenced and repeated in our curriculum, to ensure progression and secure understanding as pupils move up through the school, such as programming BeeBot in Year 1, 2code in Year 2 and then Turtle Logo, Scratch, and Kodu in Years 3-6.</p> <p>Computing is assessed through pupils' independent, paired and group work, through whole class discussions, oral questioning, explanations using correct terminology, as well as a pupils' ability to recall key information and sequence it accurately. Formative assessment takes place within lessons and pupils are supported and challenged as appropriate. Pupils are also given the opportunity to self-assess when appropriate and identify opportunities for challenge and improvement. Teacher assessment is carried out at the end of each term.</p> <p>Pupils are considered to be GDS if they are able to apply key computing skills and knowledge independently and successfully, and with increasing complexity, as well as explain the impact and reasons behind their choices when selecting software to accomplish a given goal. Additionally, pupils should seek to extend their understanding by asking further questions and suggesting ways in which these could be answered, as well as challenging themselves to solve any problems they encounter. Pupils working at GDS should also be able to analyse, evaluate and present data and information to a high level and confidently write and debug programs.</p> <p>Key English skills such as reading, and writing are used alongside computing skills when recording learning and accessing new and key information. Oracy skills are practised throughout computing lessons, providing opportunities for pupils to discuss and share ideas in the form of group work and peer support.</p>
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Impact	<p>Pupils can describe the importance of computing and understand how it has influenced the world around us today.</p> <p>Pupils are able to choose and use the most appropriate technology to achieve a specific goal effectively.</p> <p>Pupils can make explicit links between Computing, Mathematics, Science and Design and Technology.</p> <p>Pupils are excited about computing and become responsible, competent, confident and creative users of information and communication technology.</p>