

Computing Policy  
July 2022 Update

**National Curriculum purpose of study:**

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology.

Intent	At Abbey Meads School, we aim to give our pupils the skills that will enable them to embrace and utilise new technology in a socially responsible and safe way. Technology is everywhere and will play a pivotal part in students' lives; therefore, we want to model and educate our pupils on how to use technology positively, responsibly and safely. We want our pupils to understand that there is always a choice with using technology and as a school we utilise technology (including social media) to model positive use. We recognise that the best prevention for a lot of issues we currently see with technology/social media is through education. Our computing curriculum is carefully planned and aims to provide children with experience and skills of a wide range of technology. Not only do we want them to be digitally literate and competent with technology, but through our computer science lessons we want them to develop creativity, resilience and problems solving skills. As a school, we encourage staff to embed computing across the whole curriculum to make learning creative and accessible. We want our pupils to be able to operate in the 21 <sup>st</sup> Century workplace and for them to know and be excited by career opportunities that will open up to them if they study computing.
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Implementation	<p style="background-color: #e1eef6; margin: 0; padding: 2px;">Scheme of work</p> The school has a scheme of work, which states what type of programming and information technology each year group will teach. This is supported by a progression of skills, which ensures that skills are built on across the school. Keeping safe online is taught within each unit and year groups have specific content that is taught either within other units of computing or as stand-alone sessions. Teachers have access to the Teach Computing scheme, which can support subject knowledge and planning of units of work, but it is not followed as a scheme.
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	<p><b>Planning</b></p> <p>Yearly overviews show which units will be taught in which terms and teachers break these units down into lessons on medium term plans. The progression of skills guides lessons to ensure children build on prior learning and that knowledge and vocabulary is progressive across the school. The scheme of work also ensures that children are introduced to a wide range of programs - teachers can then plan to revisit these programs in other areas of the curriculum.</p> <p>Medium term plans highlight how individuals/groups will be supported to ensure all children can access the languages curriculum. They will also provide more details regarding which resources children will be using, and any links that will be made to other subject areas.</p>
	<p><b>Teaching</b></p> <p>Children are taught computing in specific computing lessons and children also reinforce and develop their skills in other areas of the curriculum. Teachers decide how to organise their lessons and will plan to use iPads, the computer suite, physical programming equipment and laptops for different activities. Different grouping may also be used, including paired work, independent work, whole class and small group work, depending on the task. Online safety is included within lessons, as part of PSHE sessions and as stand-alone sessions throughout the year.</p>
	<p><b>Assessment</b></p> <p>Teachers use formative and summative assessments to direct next steps in learning and provide targeted intervention where necessary.</p> <p>During lessons, teachers use questioning to guide lessons and to support and challenge learners. Teachers complete end of unit assessments on the foundation assessment sheets to monitor the attainment of the whole class. These can be used to guide future planning or to build in extra sessions for specific skills. The computing subject leader looks at end of unit assessments to gain an understanding of the attainment of children in computing and this is also supported by other monitoring work carried out during the year.</p>
	<p><b>Cross curricular</b></p> <p>Teachers plan to make cross-curricular links where possible and many computing units of work are part of the main topic. Computing skills are used to support learning in other areas of the curriculum and this is a chance for children to practise and reinforce skills already taught, e.g. children might use their photo editing skills when creating a webpage in Y6. Computing skills are carefully planned in to ensure they can support other areas of the curriculum, for example children are taught how to use physical programming before needing to use this as part of their DT work.</p>
	<p><b>Home - School learning</b></p> <p>Parents are informed of our focus on safer internet day and resources are shared regularly to help parents keep their children safe online.</p>
	<p><b>Monitoring</b></p> <p>The subject leader monitors the subject across the school. They follow the school monitoring schedule to evaluate the effectiveness of teaching and learning in computing.</p> <p>Across the year, pupil voice, planning audits, book looks and learning walks will take place and the outcomes of this work are fed back to staff and SMT. Where necessary, further monitoring and support will take place outside of the planned work.</p> <p>The subject leader looks at the class assessment documents at the end of the year to put this information together with the information from the subject monitoring during the year.</p>
H	Pupil/Parent/Staff voice

Children talk with enthusiasm about their computing lessons. They can explain what they have learned and talk about vocabulary that they have developed across the years. Children know why computing is an important part of their education and can talk about how computing has supported their learning in different areas of the curriculum.

Staff understand the progression of skills and feel well equipped to use this in their computing lessons. Staff subject knowledge is good and they are directed to appropriate training to support any areas that require development.

Staff use the subject coordinator to support them with planning units of computing to ensure they are of the highest quality.

#### Data

End of unit assessments show that children are working at the appropriate standard within computing. These assessments also highlight children working above the expected standard. Learning walks and book looks support these assessments to build an accurate picture of the level of computing teaching and learning across the school.

#### Book looks

Work scrutinies show that children are following the progression of skills and building on their learning as they move through the school. Work shows that children are following the scheme of work and able to use a range of programmes.

#### Planning audits

All planning meets the requirements of the NC within a topic based approach. Planning shows appropriate coverage of knowledge and skills, following the school progression of skills document.

#### Learning walks

Children are engaged in their learning and show enthusiasm for computing. Lessons show opportunities to use computing in a variety of ways and is part of a build-up of skills and fits into the school's progression of skills document.