

## **Our Computing Curriculum**

'The number one benefit of technology is that it empowers people to do what they want to do. It lets people be creative. It lets people learn things they didn't think they could learn before, and so in a sense it's all about potential.' – Steve Ballmer

## Intent

At St Andrew's it is our intention to enable children to find, explore, analyse, exchange and present information. We also focus on developing the skills necessary for children to be able to use information in a discriminating and effective way. We want children to know more, remember more and understand more in computing so that they leave our school computer literate. Computing skills are a major factor in enabling children to be confident, creative and independent learners and it is our intention that children have every opportunity available to allow them to achieve this.

We intend to build a computing curriculum that develops pupil's learning and results in the acquisition of knowledge of the world around them that ensures all pupils can understand and apply the fundamental principles and concepts of computer science, including:

- Abstraction
- Logic
- Algorithms
- Data representation
- Analysis of problems in computational terms,
- Experience of writing computer programs in order to solve such problems.

We intend to build a computing curriculum that prepares pupils to live safely in an increasingly digital British society where pupils can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems. They develop a range of transferrable skills which can make them active participants in a digital world and prepare them for the world of work. We aim to encourage children to use, express themselves and develop their ideas through a range of information technology.

## Implementation

Our Computing curriculum is taught both discretely and cross-curricular, using a scheme of work from Purple Mash, adapted to ensure all the parts of the



National Curriculum are fulfilled. It is comprised of a balanced coverage of three aspects: Digital Literacy, Information Technology and Computer Science.

The children will have experiences of all three strands in each year group, but the subject knowledge imparted becomes increasingly specific and in depth, with more complex skills being taught, thus ensuring that learning is built upon. Knowledge and skills are mapped across each topic and year group to ensure systematic progression.

We have a class set of iPads for shared class use and some computers in classrooms too, ensuring that all year groups have the opportunity to use a range of devices and programs for many purposes across the wider curriculum, as well as in discrete computing lessons.

Units of work are carefully sequenced so prior knowledge and concepts are built upon to develop digital literacy, an awareness of online safety and a progressive knowledge of computer science. As well as the benefits of ICT, we are also aware of the risks. This is why we prepare our children to stay safe online through the use of termly e-safety lessons.

## Impact

Staff identify the impact of our curriculum through a variety of ways.

These include:

- Observations
- Regular recall and retrieval activities
- Targeted questioning
- Marking and feedback
- Teacher assessment against key performance indicators
- Pupil interviews
- Analysis of data

We use these strategies to review our curriculum offer, inform our strategic action planning and make adaptations where necessary.

Our approach and monitoring of the curriculum results in a fun, engaging, and high-quality computing education. The quality of children's learning is evident in their Purple Mash folders, where pupils can share and evaluate their own work, as well as that of their peers. Evidence such as this is used to feed into teachers' future planning, and as a cross-curricular approach continues to be



developed, teachers are able to revisit misconceptions and knowledge gaps in Information Technology, Computer Science and Digital Literacy when teaching other curriculum areas. This supports varied paces of learning and ensures all pupils make good progress.

Every child leaves our school with mouse control, typing skills and keyboard shortcut awareness. Much of the subject-specific knowledge developed in our computing lessons equip pupils with experiences which will benefit them in junior school, secondary school, further education and future workplaces. From research methods, use of presentation and creative tools and critical thinking, computing at St Andrew's C of E Infant School gives children the building blocks that enable them to pursue a wide range of interests and vocations in the next stage of their lives.