

Subject on a page: Computing

At Ibstone CE Primary School we recognise that technology plays such a significant role in society today and we believe our pupils must learn a range of skills to participate safely and successfully in our ever-changing digital world.



Intent - We aim to...

Enable pupils to be confident, courageous and resilient computer scientists

Ensure our pupils are digitally literate and competent end users of technology

Enable pupils to embrace and utilise new technology in a socially responsible and safe way. Develop responsible online citizens

Nurture resilience and inquisitiveness for all pupils to become creative problem solvers.

Use technology to support learning across the wider curriculum



Implementation — How we achieve this...

Information about our curriculum

We have chosen to follow Kapow Primary's Computing scheme. This scheme aims to instil a sense of enjoyment around using technology and develop pupil's appreciation of its capabilities and the opportunities technology offers to, create, manage, organise, and collaborate. Tinkering' with software and programs forms a part of the ethos of the scheme as we want to develop pupils' confidence when encountering new technology, which is a vital skill in the ever evolving and changing landscape of technology. Through our curriculum, we intend for pupils not only to be digitally competent and have a range of transferable skills at a suitable level for the future workplace, but also to be responsible online citizens and creative problem solvers.

Curriculum Design

Our curriculum follows a clearly sequenced and progressive program of study based on the National Curriculum, it also provides pupils with the opportunity to learn and apply transferable skills. Computing has three strands that runs through the scheme; Computer Science, Information Technology and Digital Literacy. Lessons are then categorised into five key areas – Computer systems and networks, Programming, Creating Media, Data Handling & Online Safety. We have adopted the condensed scheme to ensure full coverage of the National Curriculum, this also allows us to include more cross-curricular links to allow children to experience how computing can fit into the wider world.

Online Safety

It is our statutory duty to protect our pupils and specifically address online safety, especially with regards to online child-on-child abuse, relationships on social media and the use of mobile and smart technology. Online safety is taught every year within the scheme but it is also regularly recapped with high quality teaching and learning resources, Pupils are acutely aware of not only the dangers but also the bonuses behind being active online. They are regularly shown how to report problems and concerns that they may have and they are also aware of how social media can affect their mental health and wellbeing. They are shown how to be sensible and responsible online and are taught with the concept of their online activity being a 'digital' footprint: once something has been done online it is almost impossible to remove. Online safety is also taught through our Jigsaw PHSE work.

Knowledge Rich

We want our children to understand how computing is used purposefully to 'empower knowledge'. This knowledge includes the history of computing and explains how it is used in the modern world. At Ibstone CE Primary, pupils are taught how computers have contributed to our past achievements and how technologies can transform lives going forward.

Range of Technology

Across the school, pupils are taught to use a range of electronic and practical resources, such as; iPads, laptops, BeeBots, micro: bits and floor robots. We want to prepare pupils for the next stage of their computing learning so they are able to apply these computing skills across a wide range of devices. We try to provide opportunities for our pupils to apply the use of technology across a range of subjects. We want the pupils to demonstrate a love of technology, resources and Apps and how to use these within their daily life.

Implementation – continued

Vocabulary

Specific vocabulary is made explicit in planning. We share technical and accurate vocabulary with the pupils in each unit. During their sessions, pupils talk about their learning in Computing using appropriate and technical vocabulary. We want our pupils to have widened computing and technical vocabulary and use this not only in computing lessons, but also in lessons such as Science and Mathematics. Progression in vocabulary is planned from EYFS to Year 6 so that vocabulary is revisited across different contexts.

Inclusivity

It is important for pupils to develop their computing knowledge from an early stage. Therefore, our EYFS children have access to a range of technologies to prepare them for life in a digital world. We ensure all pupils are provided equal opportunities. As in all areas of school life, activities are scaffolded with extra resources such as visual prompts so that all pupils can flourish. Pupils may also access a range of technologies within all lessons to assist them e.g. using a laptop to type their Science, English work. Using an iPad to record their ideas etc

Programming

Programming is an important part of the computing curriculum. It allows pupils to apply their knowledge of computer science through writing code to solve problems. We have coding units across the curriculum with progressive software as pupils move up through school. Programmes such as ScratchJr allow even our youngest pupils to try their hand at programming!

Revisiting & Retrieving

We recognise the importance for all pupils to be able to retrieve and recall knowledge across the curriculum to enable them to know more and remember more. In order for pupils to flourish in computing, each lesson starts with a look back at prior learning. Inspired by our Developing Experts Science Curriculum, we are developing 'Speak like an Expert' opportunities in Computing for all pupils.

Assessment

Staff continually assess children throughout each lesson and will adapt where needed. They regularly ask questions to ensure understanding of concepts. These concepts are then moved to online applications for example: teaching programming 'unplugged' then moving this knowledge onto Scratch. At the end of each unit, summative assessments are used to assess whether knowledge has been retained.

Impact

Children understand how to be safe online and in the digital world

Children have an understanding of their digital footprint and the impact of this

Pupils apply their computing knowledge and skills to other areas of learning

Children have an understanding of how computing impacts on daily life and the wider community

Children are confident using a range of technologies in this digital world and Modern Britain.

Children become confident, resilient, and courageous learners, who can work as a team and take responsibility for their own learning