

ST NEOT SCHOOL

Computing Rationale

At St Neot Primary School we intend to develop 'thinkers of the future' through a modern, ambitious and relevant education in computing. We want to equip pupils to use computational thinking and creativity that will enable them to become active participants in the digital world. It is important to us that the children understand how to use the ever-changing technology to express themselves, as tools for learning and as a means to drive their generation forward into the future.

Intent

St Neot school's computing scheme aims to instil a sense of enjoyment around using technology to develop pupil's appreciation of its capabilities and the opportunities technology offers to, create, manage, organise, and collaborate.

Tinkering with software and programs forms part of the ethos of the scheme as we want to develop pupil's 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 as a suitable level for the future workplace, but also to be responsible online citizens.

Our scheme of work enables pupils to meet the end of Key Stage attainment targets outlined in the National Curriculum and the aims align with those in the National Curriculum. Our computing curriculum also supplements and compliments our RSE and PSHE curriculums to help equip children for a life in the digital world, including developing their understanding of appropriate online behaviour, copyright issues, being discerning consumers of online technology and healthy use of technology.

SMSC and British Values

Spiritual

- Providing opportunities for reflection and awe around the developments in technology and the possibilities for the future.
- Offering opportunities to learn about how technology is used in the world around them, with time to consider the benefits and drawbacks of this.
- Encouraging them to consider the feelings of others in their use of technology.
- Allowing them to express themselves creatively using technology.

Moral

- Raising awareness of the legal aspects of using technology including copyright legislation, data protection and age-restrictions.
- Instilling the importance of treating others online with respect and ensuring pupils understand the negative effects that unkind online behaviour can have on others.
- Offering opportunities for pupils to discuss ethical issues surrounding technology, such as data tracking, online advertising and influencers and the proliferation of fake news and disinformation.

Social

- Promoting collaborative learning with technology and exploring the benefits of this.
- Giving them opportunities to cooperate with a group towards a shared outcome.
- Encouraging pupils to speculate and hypothesise with their peers when tinkering with new technology.
- Teaching rules for being a respectful member of an online community and the importance of mutual respect when using technology.
- Teaching children their rights (Individual liberty/ Rule of law) regarding issues such as sharing of information and being in control of permissions on their devices.
- Raising awareness of the common issues and benefits of social media.

Cultural

- Encouraging them to reflect on how developments in technology have led to changes in every-day life.
- Allowing them to engage with cultural opportunities that may otherwise be unavailable to them from the confines of the classroom.

Implementation

The National Curriculum purpose of study states:

'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'.

Therefore, our scheme of work is designed with three strands which run throughout:

- Computer science
- Information technology
- Digital literacy

Our progression of skills and knowledge documents show the skills and knowledge that are taught within each year group and how these it develops year on year to ensure the attainment targets are securely met by the end of each key stage.

Our curriculum is organised into five key areas, creating a cyclical route through which the pupils can develop their computing knowledge and skills by revising and building on previous learning:

- Computing systems and networks
- Programming
- Creating media
- Data handling
- Online safety

Our curriculum ensures a broad and balanced coverage of the National Curriculum requirements, and provide pupils with the opportunity to learn and apply transferable skills. Where meaningful, units have links to other subjects, such as science, art and music to enable the development of further transferable skills.

Lessons incorporate a range if teaching strategies from independent tasks, paired and group work as well as unplugged and digital activities. This variety means that lessons are engaging and appeal to those with a variety of learning styles.

Impact: to be reviewed at the end of each year

The impact of our curriculum can be constantly monitored through both formative and summative assessment opportunities.

The expected impact of our curriculum is that children will:

- Be critical thinkers and able to understand how to make informed and appropriate digital choices in the future
- Understand the importance of computing will have going forward in both their educational and working life and in their social and personal futures
- Understand how to balance time spent on technology and time spent away from it in a healthy and appropriate manner
- Understand that technology helps to showcase their ideas and creativity. They will know that different types of software and hardware can help them achieve a broad variety of artistic and practical aims.
- Be able to use technology both individually and as part of a collaborative team.
- Be aware of online safety issues and protocols to be able to deal with any problems in a responsible and appropriate manner.