

Computing at Shaw



At Shaw Primary school our aim is to prepare our children to be "lifelong learners" with the confidence and skills they need to become digitally literate and global citizens of the 21st century

As computing is an increasing part of life today it is essential that all children at Shaw gain the confidence and ability that they need in this subject, to prepare them for the challenge of a rapidly developing and changing technological world.

Our computing curriculum will aim to deliver skills which equip children to use ICT across the whole curriculum whilst developing motivation and social skills with the hope that the use of technology will enrich the children's experiences and support their learning.

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 will ensure that children are aware of the possible risks when using the internet through a rolling programme of assemblies and at the beginning of lessons as well as making sure the rules are displayed. Children and parents will be advised on the procedures and any breach of these will be noted and parents informed when necessary. Parents and children will be given any information necessary to keep them safe online both inside and outside of school.

WHY do we teach this subject? (What does it add to the education of each child?)

The Computing curriculum is ambitious because:

- It develops a wide range of knowledge, skills, understanding and constructive attitudes towards technology
- It develops the underlying processes and metacognition needed for students to have a deep understanding of Computer Systems
- It recognises that students have the right to become more than competent operators of technology – that they are able to adapt, understand and make discerning use of the technology around them.
- It integrates the latest DFE guidance on Online Safety therefore making sure that the ethics of Computer use are addressed. This is vital for building positive social capital in any society.
- It complements the vision of the National Centre of Computing Education

The Computing curriculum is coherently planned and sequenced because:

- There are broad themes that align vertically through each key stage: Programming, Multimedia and Digital Literacy
- Objectives within each strand are progressive, and share a common language so that there is progression in Computer Science skills
- The objectives allow usage in either a discrete or cross-curricular way.
- Online Safety is taught periodically in a planned and sequenced way, building layers of resilience against inappropriate conduct, content and contact
- This document provides access to customizable resources and lesson plans, so that additional content can be included or adapted by teachers as needed.

The Computing curriculum contributes to a broad and balanced ethos because:

- It focuses on a wider range of knowledge and skill than the operation of devices – contributing to children becoming well informed and rounded learners
- It provides access to sequences of lessons looking at a wide range of real-world applications of Computing
- It allows the classroom practitioner to include cross curricular work – for example with Mathematics and Data handling

Implementation

- Teachers have an appropriate level or knowledge for the subject, which is supported through the access to sequences of lessons, resources and planning within this scheme if work. Where staff need support, there is access to planning, teaching and coaching support from The White Horse Federation School Improvement team
- The learning is structured to help with retention of knowledge and underlying skills – for example, in programming, children will systematically develop their skills in prediction, investigation, making and modifying and improving.
- The curriculum supports the school's wider ambitions towards reading – key questions, success criteria, and information about online safety allow children to use their reading skills. Debugging code develops skills in scanning techniques, and reinforces the need for accurate syntax.

WHAT do we teach?

- enjoy using information technology and tackle all applications with confidence and a sense of achievement and purpose.
- develop practical skills in the use of information technology and the ability to apply these skills to the solving of relevant and worthwhile problems
- understand the capabilities and limitations of information technology and the implications and consequences of its use.
- be open minded in their approach to information technology so that they will be able to adapt easily to the information technology systems and approaches they will encounter in their future lives.
- understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- use information technology as a tool appropriately across the curriculum to support and enrich their learning