

Subject on a page:

Computing

Technology plays such a significant role in society today and we believe our children must learn a range of computational skills to participate safely and successfully in our ever-changing digital world.



Intent—We aim to...



Practise safe, sensible and responsible behaviour in the digital world.

Participate in problem solving using collaboration, computational skills, different devices & a range of scenarios.

Produce and present a range of ideas and communicate them effectively.

Prepare to be discerning about how they, their friends, their family and wider society interacts and uses technology.

Widen children's vocabulary both in terms of technical language but also descriptive language through their experiences in computing

Implementation—How do we achieve our aims?



The computing curriculum is based on the National curriculum objectives for KS1 and KS2. The school uses the Kapow Computing scheme of work which is progressive in its content. Year groups elect which hardware and software is best used for the children in their year group. Some of the software is desktop based where other software is from an online platform such as Purple Mash or Python Coding. Computing is covered within each year group, rather than coverage across the phase. Progression is maintained through the phases by following the specific year group objectives, which build upon and revisit prior learning from the previous years.

**Curriculum design**

Our curriculum follows a clearly sequenced and progressive program of study based on the National Curriculum, whilst also considering the interests of the children. Computing progression is thought about in three ways: computer science, information technology and digital literacy. . We promote high quality teaching that is appropriately pitched to individuals and we try to plan for Cross-curricular links to allow children to experience how computing can fit into the wider world.

**Range of technology**

Through the Key Stages, children are taught to use a range of electronic and practical resources, such as; iPads, Chrome books, laptops, BeeBots and desktops. We want to prepare children 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 children 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.

**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 Hurst Green, pupils are taught how computers have contributed to our past achievements and how technologies can transform lives going forward.

**Vocabulary**

When computing is taught at Hurst Green, we share technical and accurate vocabulary with the children for each Computing unit. During their sessions, the children 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 Maths. We teach E-safety lessons that are used to develop children's knowledge and understanding of being safe online. Progression in vocabulary is planned from Year 1 to Year 6 so that vocabulary is revisited across different contexts.



# Implementation (continued)

## Subject knowledge

Subject-specific CPD is an important priority for primary schools. Our CPD ranges from online learning with Kapow, in-house training, to curriculum leads attending Teach Meets with other local schools and self-directed training via National College. We offer staff CPD to ensure that they have sufficient skills to teach effectively during computing lessons but also to deliver other parts of the curriculum using their IT skills.

## Diversity

Diversity in computing must be addressed and taught that anything and everything that is posted or saved on a device can be retrieved and that digital footprints exist even if data is deleted. It is important not to create stereotypes or create a platform to send inappropriate messages or comments regardless of ethnicity, age or gender.

## Assessment

Our assessment determines whether pupils can remember what they have been taught and can apply this knowledge as intended. The assessments we perform are based on specific criteria rather than generic competency. Our staff assess children at the end of each of the half termly units against key performance indicators.

## Computational thinking

Computational thinking is when pupils solve problems in computing. We encourage our children to solve problems in computing so these skills can be transferred to other areas of the curriculum. The elements we including with our teaching are Logical thinking, algorithmic thinking and pattern recognition.

## Focus days & Events

Focus days and events are being developed within the curriculum as we feel these allow the children to apply their learning to a real life context. The children at our school take part in E-safety week, Google experiences and trips to locations such as The National Space Centre. Children are also invited to regular e-safety assemblies which tie into our Jigsaw PSHE work.

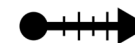
## Inclusivity

It is important for pupils to develop their computing knowledge from an early stage. Therefore, we will include an introductory curriculum for our EYFS children to prepare them for the cognitive dimensions of learning. We recognise the national gender imbalance of computing but we ensure all pupils are provided equal opportunities. Children with SEND are supported where needed within lessons by the use of computing aids to assist them.

## 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 in every year with progressive software as the children move up through school. Programmes such as Scratch allow even our youngest pupils to try their hand at programming!

## Impact: How will we know we achieved our aims?



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

Children apply their computing knowledge to other areas of learning

Outcomes at the end of Key Stage 2 are in line with other subjects and progress in computing is evident

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

Children are confident in technology in this digital world and Modern Britain.

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