

Curriculum Policy for Computing

DATE OF REVIEW: Spring 2024

DATE OF NEXT REVIEW: Summer 2026

TO BE REVIEWED BY: Teaching & Learning Committee



Introduction

All pupils are entitled to a broad and balanced curriculum regardless of race, gender, religion or ability.

Computing is a Foundation Subject in the National Curriculum.

This policy outlines the Intent, Implementation, and Impact of Computing taught in our school. The Implementation of this policy is the responsibility of all teaching staff and Computing is considered to be a key enhancer subject, spanning and enriching our entire curriculum. The school policy for Computing reflects the consensus of opinion of the whole teaching staff and has the full agreement of the Governing Body.

Intent

Computing is woven into our broad curriculum, therefore creating purpose and context in its delivery. Through a range of opportunities, our digitally literate pupils develop a secure understanding of how to use the internet safely, whilst applying key computational knowledge and transferable skills within their learning, via a range of electronic devices. At Hatherleigh, it is our intention to instil in our pupils an understanding of how ICT can be used safely and effectively in school, in the workplace and in wider social interactions. The National Curriculum for Computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems and are safe, responsible, competent, confident and creative users of information and communication technology.

It is therefore our intention to facilitate pupils' learning and safety as they locate, explore, analyse, exchange and present a range of information. We also focus on developing the skills

necessary for pupils to be able to utilise information in an effective, productive way. Computing skills are a major factor in enabling pupils to be confident, creative and independent learners and, at Hatherleigh, our teaching staff seize every opportunity to enable our pupils to develop their digital literacy skills and the associated knowledge.

Our intention is to introduce children from an early age to the concepts of cloud computing and software as a service. The coronavirus pandemic of 2020/21 accelerated the development of digital working and we want to equip children with the skills and knowledge to thrive in an increasingly online world. Some practices that began during the pandemic are likely to continue and the skills required to function in an increasingly online world need to be developed in appropriate sequential steps

Implementation

Computing is woven into our broad curriculum, where teachers use the Curriculum overview and Progression of knowledge, skills and understanding documents to enable pupils to develop a range of transferable skills, delivered through meaningful cross curricular topics. Our pupils have opportunities to share their learnt skills and knowledge (from other subjects) through presentational platforms, as well as inputting and analysing data collected throughout exploration and research. Using google workspace as a foundation for collaborative learning, a wide range of technology including laptops, tablets and programmable equipment supports the delivery of an exciting and varied curriculum. Our knowledgeable Subject Lead and is experienced and instrumental in the planning and generating of ideas, as well as providing technical support when required. Training and professional development is provided to support staff as needed.

The Computing Progression document is taken from the National Curriculum and has been designed to meet the unique needs of our pupils. As the National Curriculum prescribes, these statements span Years 1 and 2, Years 3 and 4 and Years 5 and 6. In addition to this, we also have an EYFS to Year 1 and 2 document, which incorporates both curriculums in order to plot a seamless progression.

These statements have been transferred to our Computing Curriculum overview and Progression of knowledge, skills and understanding documents which has then enabled us to focus closely on how knowledge and skills progress more specifically within each year group, in order to meet the bespoke needs of our school and its pupils.

Lesson planning in Computing takes account of prior knowledge ensuring that the subsequent development of skills and knowledge builds directly upon what is already secure, in readiness for the next stage in the learning journey.

The Computing Curriculum overview and Progression of knowledge, skills and understanding documents is underpinned by E-safety, because it is pivotal that pupils understand the dangers associated with the internet and are clearly informed about the necessary precautions they must take in order to stay safe.

The 3 additional strands that run alongside E-Safety are:

- Communication and online collaboration
- Programming
- Beyond the screen - computer control

Key skills and knowledge clearly inform teaching staff in their delivery of the precise requirements for each year group.

The Subject Lead has also prioritised and highlighted the prerequisite vocabulary that is taught and revisited in order to fully immerse pupils and develop their understanding of the subject. This is progressive year-on-year and the Computing Vocabulary Progression Grid captures this concisely.

The statements in the Curriculum overview and Progression of knowledge, skills and understanding documents enable pupils to gain a secure understanding of E-safety across a range of devices, networks and social media platforms; this is taught progressively, through age-appropriate channels and resources. Pupils are exposed to a range of computer skills, which are used as vehicles for learning within topics. For example: creating exciting Stop Motion animations, sharing important information through slide presentations and text documents and expressing their views and knowledge via fun Blogs and Vlogs. Pupils also have the opportunity to use websites and platforms as pathways to research topic-specific information whilst understanding the importance of identifying reliable sources.

Our equipment and resources also facilitates regular engagement in practical experiences of programming, where pupils learn how to program equipment, code on-screen characters and later, develop their very own gaming software. Our dedication to inclusive practice means that, regardless of their ability, pupils are aided to access learning with the highest possible levels of independence, due to carefully designed tasks. Where necessary, pupils requiring extra help are sensitively supported, with minimal disruption to quality-first teaching. Our ambition is to narrow the gap between different groups of pupils and to ensure that their life-opportunities are equal, irrespective of background or ability.

Extended Curriculum Opportunities

Internet Safety Week – exciting teaching activities are planned to further highlight the importance of staying safe online. Pupils are encouraged to access a range of Interactive Learning Platforms at home to support learning; including Times Tables Rock Stars (numbots for youngest children), the use of TINKERCAD to introduce children to the world of 3D design (linked with DT) and the linguascope for MFL.

The increase in remote working enforced by the pandemic has been reflected in education and at Hatherleigh we are keen to retain the best bits of this. Our oldest children collate team points digitally and share these with teachers. Younger children learn how to fill in online forms. At the same time, this helps children to learn about online confidentiality in a safe and meaningful way.

Impact

As a result of high-quality, comprehensive teaching, our pupils exhibit confidence, creativity and independence in computing, whilst showing consideration of the potential consequences and risks associated with using the internet.

Pupils confidently demonstrate a secure knowledge of the fundamental principles and concepts of computer science as they write computer programs to solve problems and instruct programmable devices. They show competence in locating and utilising reliably sourced research information to present and inform, whilst exposure to a range of software enables them to apply their skills with increasing levels of independence throughout a range of subjects. Use of google workspace has helped them to have an understanding of software as a service and online collaboration.

Computing sessions showcase our skilful users of technology who work both independently and collaboratively with a wide range of computing hardware and software which is utilised to enhance learning outcomes across the curriculum.

Sessions also demonstrate clear progression across the school in both pupils' understanding, and their technical skills.

Hatherleigh's computing curriculum results in digitally literate pupils who are able to express and develop their ideas through a range of information and communication technology. As a result, they are well -equipped with the relevant skills and knowledge to prepare them for their secondary education and furthermore, enable them to pursue a wide range of interests and future career paths throughout their lives.