Policy: September 2023

Computing Policy

Aims:

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.
- Are responsible, competent, confident and creative users of information and communication technology.

Intent

At Abbey our intention is that pupils will be able to access a broad curriculum that balances the different skills needed within Computer Science, Information Technology and Digital Literacy. The children will use these skills to inform and enhance life-long learning and equip them for the future. We intend for pupils to have a foundational understanding of computing to include algorithms, simple programs, logical reasoning and prediction. We also aim for pupils to purposefully and creatively store, manipulate and retrieve digital content as well as being able to recognise how technology is used across the wider world. We believe that young children need a strong, but age-appropriate, understanding of how to keep safe when using modern computing technology and the internet. This will then allow pupils to feel protected, well-informed and able to self-regulate when using technology and the internet and all it has to offer.

Supporting this intent is our Abbey vision 'Shine brightly - (Jesus said) "You are the light of the world. A town built on a hill cannot be hidden. Neither do people light a lamp and put in under a bowl. Instead they put it on a stand, and it gives light to everyone in the house. In the same way, let your light shine before others, that they may see your good deeds and glorify your father in Heaven." (Matthew 5: 14-16) (taken from the Sermon on the Mount)

Implementation

Early Years

In the Early Years framework, computing is not explicitly included in the curriculum. However, our school uses technology to enhance learning in various aspects of the Early Years Foundation Stage (EYFS) and to establish a foundational understanding of computing in preparation for the transition to Year 1. Children in the EYFS learn to follow instructions

(algorithms), engage with programmable toys such as Beebots, and utilise interactive whiteboard games to support their learning across different curriculum areas. They also begin to comprehend how the internet can serve as a valuable resource for gathering information that aids in their educational development, while exploring a diverse array of technologies.

Key Stage 1

Our Computing curriculum is taught as a discrete subject as well as making links through other subjects. Many of these skills are transferrable, which provides a wealth of learning opportunities across the curriculum subjects. Pupils need to gain a foundation in the key attitudes, knowledge and skills that will provide them with success within Computing. Children will be taught declarative and procedural knowledge within the lessons that they undertake. Declarative is the know that (facts and concepts and how they are related) and procedural is the knowing how (methods and processes). This knowledge will be taught through the interweaving of the pillars of progression, Computer Science, Information Technology and Digital Literacy.

In Key Stage One, computing curriculum is taught discretely using the 'Teach Computing' curriculum and covers all aspects of the National Curriculum including the pillars of progression; Digital Literacy, Information Technology and Computer Science. By the end of Key Stage One children would have been given the opportunity to use the skills that they have been taught to achieve the National Curriculum:

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Knowledge and skills are taught progressively, allowing the children to embed their learning over time. The children have access to ipads, laptops and Beebots to help support their learning. These are used across the curriculum to enhance and support with the delivery of lessons. In addition to this, each classroom has a Clevertouch Whiteboard, to further enable and enhance learning.

We incorporate e-safety as a fundamental component of our curriculum, addressing it explicitly through our Computing and PSHE/PSED lessons across the entire school. To ensure a comprehensive e-safety curriculum, we take advantage Project Evolve to promote discussions on key issues pertinent to our children. Topics include self-image and identity, online relationships, online reputations, online bullying, managing online information, health,

wellbeing and lifestyle, privacy and security and copyright and ownership. Additionally, we introduce age-appropriate literature that addresses e-safety themes, such as "Chicken Clicking" and "Digiduck's Big Decision." Each classroom prominently displays a list of "Our Computing Rules," emphasising the importance of online safety. Furthermore, we recognise Internet Safety Day annually through assemblies and targeted activities to reinforce these critical concepts.

Planning

Planning comes from the NCCE Teach Computing scheme of work and has a clear progression of skills throughout the programme. The children build upon the skills that they have been developing within the previous year and increase their skill set. The long-term planning is taken from the yearly overview. This has then been linked to the National Curriculum for Computing and identifies if the unit of work covers Computer Science, Information Technology or Digital Literacy.

The long-term planning is then split in to units of work which creates the medium-term planning for that unit of work. These can be retrieved from the Teach computing websites for the teachers to use and adapt as they feel necessary for their children. The class teacher is responsible for looking at each lesson of work within the unit of work, so that they can identify the key learning points and the support that will be needed.

Inclusion and Equal Opportunities

At Abbey Infant School we plan to provide for all pupils to achieve, including boys and girls, higher achieving pupils, gifted and talented pupils, those with SEN, pupils with disabilities, pupils from all social and cultural backgrounds, children who are in care and those subject to safeguarding, pupils from different ethnic groups and those from diverse linguistic backgrounds. In order to ensure that children with SEN needs achieve their full potential, it may be necessary to adapt the delivery of the computing curriculum for some pupils.

Monitoring and evaluation

The SLT and subject leader are responsible for monitoring the standard of the children's work and the quality of teaching in line with the schools monitoring systems. This may be through lesson observations, pupil discussion and evaluating pupil work.