



PETERBOROUGH KEYS
ACADEMIES TRUST

Computing

Intent:

All pupils at Ravensthorpe Primary School have the right to have rich, deep learning experiences that balance all the aspects of computing. With technology playing such a significant role in society today, we believe 'Computational thinking' is a skill children must be taught if they are to be able to participate effectively and safely in this digital world. A high-quality computing education equips pupils to use creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. At Ravensthorpe, we teach a curriculum that enables children to become effective users of technology who can:

- Understand and apply the essential principles and concepts of Computer Science, including logic, algorithms and data representation.
- Analyse problems in computational term and have repeated practical experience of writing computer programs in order to solve such problems.
- Evaluate and apply information technology analytically to solve problems.
- Communicate ideas well by utilising appliances and devices throughout all areas of the curriculum.

Internet Safety

Ravensthorpe Primary take internet safety extremely seriously. E-safety is at the heart of our curriculum to ensure children and parents understand how to use the internet safely. We follow the guidance from 'Education for a Connected World' framework and the Project Evolve scheme (Keeping Safe) to enable children to learn the safe use of technology and the internet. This allows them to think about how they can keep themselves and others safe, being mindful of how their behaviour, words and actions can affect others.

Implementation:

We follow a broad and balanced Computing curriculum (based upon the National Curriculum) that builds on previous learning and provides both support and challenge for learners. We follow a Computing scheme from the National Centre for Computing Education (NCEE) that ensures progression of skills and covers all aspects of the Computing curriculum.

Early Years is the first opportunity to develop our children's digital understanding. We implement our computing curriculum by following the interests of the children through the Early Years Foundation Stage Statutory Framework which aims to guide children to make sense of their physical world and their community. Children are exposed to a variety of technologies throughout continuous provision such as having access to phones, ovens and iPads. Children also start programming in EYFS with Beebot machines.

In KS1 and KS2 the computing curriculum is organised around four key areas: Creating Media, Programming, Computer Systems and Networks and Data and information. These disciplinary skills are built on year upon year to prepare children for KS3 and the wider world. In an ever expanding world, we want to ensure children understand how to keep themselves safe online and why it is important to do so. Working alongside the PSHE curriculum, we ensure that e-safety is taught following the Project Evolve scheme in circle times for KS1 and it is explicitly taught in Keeping Safe lesson in KS2.

All classes will have a scheduled Computing lesson each week and there will be an expectation that technology will be utilised throughout other lessons in the curriculum. Links to other areas of the curriculum



are planned out in advance so that children have the opportunity to apply their computing knowledge in other subjects.

Children's work will be recorded using a folder to store their work. These will be used for reference and assessment, to provide a clear picture of the children's learning journey throughout the year.

Impact:

Our Computing curriculum is high quality, well thought out and is planned to demonstrate progression. If children are keeping up with the curriculum, they are deemed to be making good or better progress. In addition, we measure the impact of our curriculum through the following methods:

- A reflection on standards achieved against the planned outcomes
- Children can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.
- Children can analyse problems in computational terms and have repeated practical experience of writing computer programs in order to solve such problems.
- Children can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- Children are responsible, competent, confident and creative users of information and communication technology.
- Tracking of gains in each quiz.
- Pupil discussions about their learning.

Our Computing curriculum is planned in a way which promotes the cultural capital of all our children. We enhance our curriculum especially for the most disadvantaged by organising opportunities like Code Club which focuses on children developing their coding skills outside of usual lesson parameters and promotes internet. We develop these skills to enable children to choose from a wide range of vocations when they leave education. We also provide additional opportunities for children to apply these skills in their local environments, including digital photography and art.