Temple Herdewyke Primary School

Science Intent, Implementation and Impact Statement

Intent

The teachers at Temple Herdewyke Primary School understand the immense value technology plays in supporting the Computing and whole school curriculum, day-to-day life of our school and also the increasing role it plays in our pupils' lives as they grow older. We believe that technology can provide enhanced collaborative learning opportunities; better engagement of pupils; easier access to rich content; support conceptual understanding of new concepts and can support the needs of all our pupils.

Our aim is for all our pupils to develop their computational thinking skills and creativity. At the core of the Computing curriculum lies computer science. Our children are able to build on their knowledge using information technology skills and by becoming computer literate. The use of Purple Mash across the school underpins the curriculum needs for all of these areas.

Implementation

Computing at Temple Herdewyke is taught in a number of ways.

In the Early Years the approach is through cross-curricular learning with an emphasis on hands on experiences and is assessed through the Understanding the World, Early Learning Goal. Teaching is through context-based and role play experiences using many resources such as I-Pads and programmable toys.

From Year One upwards, we use Purple Mash as a cohesive scheme of work addressing the statutory aspects of the National Curriculum. As a school, we believe in delivering fun and engaging lessons which help to raise standards and allow all pupils to achieve to their full potential. By Key Stage 2, our pupils are given more freedom to use other Computing tools such as working with Microsoft programmes and coding using 'Scratch'.

Whilst our discrete Computing lessons use Purple Mash as a foundation for teaching, we also enjoy the flexibility of using Computing to enhance other lessons and further engage the pupils in leading their own learning. They are able to use technology imaginatively and creatively whilst also becoming efficient learners and critical thinkers. Cross-curricular teaching helps enthuse and equip children with the capability to use technology throughout

their lives. We believe that this transference of skills can aid in teaching pupils the strategies and knowledge necessary to enable them to reap the benefits of the online world, whilst being able to minimise risk to themselves or others.

All Computing lessons begin with the children acknowledging the on-line safety rules which are adhered to across the school community.

Key Stage 1

- Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions.
- Write and test simple programs.
- Organise, store, manipulate and retrieve data in a range of digital formats.
- Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

Key Stage 2

- Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- Use sequence, selection and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs.
- Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs.
- Understand computer networks including the internet; how they can provide multiple services, such as the world- wide web; and the opportunities they offer for communication and collaboration.
- Describe how Internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely.
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Impact

Progress is measured through regular teacher assessments. These take place at the end of each unit of work taught and data is subsequently analysed. Purple Mash, and other programmes, work is saved electronically in the children's personal document folders.