Computing at Templemoor Infant and Nursery School

Vision Statement

At Templemoor we believe Computing is an integral part of our everyday life and plays an immeasurable part in our children's futures. We provide children with the skills, creativity and enthusiasm to live and thrive in a world increasingly dependent on computing.

Subject Link to Values

Computing promotes our whole school values:

Caring – At Templemoor, we encourage children to use technology positively, responsibly and safely both in school and at home. We believe it is crucial to teach them how to keep themselves and others safe and enable them to realise their responsibility to be inspirational and responsible in this digital age. This in turn, makes the children care about their own and others' needs, wants and values.

Achieving – Children will be equipped with the skills and knowledge to use technology effectively, at home and in school, confidently and safely. As children become more confident in their abilities in Computing, they will become more independent and key life skills such as problem-solving, logical thinking and self-evaluation become second nature.

Making a Difference – Computing allows children to harness their imagination and enable them to dream up solutions for problems that don't even exist yet. After the implementation of this robust Computing curriculum, children at Templemoor will be confident users of technology, able to join the rest of the world on its digital platform.

Together – Computing encourages many key life skills such as problem-solving, logical thinking and evaluation, both individually and as part of a team. Due to most projects being done collaboratively, children gain essential communication and teamwork skills.

Learning Power Links

Computing promotes our whole school learning powers:

Resilience: Computing promotes risk taking, solving problems and learning from mistakes. The comprehensive progression scheme is well structured and supports our learners to overcome problems and succeed.

Resourcefulness: Our Computing curriculum ensures every element is embedded and the knowledge/skills statements build year on year to deepen and challenge our learners.

Knowledge: Through our teaching we give our children opportunities to develop logical thinking skills, use decomposition to break down problems, use algorithms to think about how things work, recognise patterns, abstract important and essential information, and evaluate their work.

Keeping safe: Our scheme models and educates our children on how to use technology positively, responsibly and safely.

Keeping healthy: Computing enhances and extends our children's learning across the whole curriculum whilst contributing to motivation.

Respectful: Children are encouraged to realise their responsibility to be inspirational and responsible in this digital age.

Rights Respecting Links

Intent, Implementation and Impact Statement

Intent

ICT is an integral part of everyday life; our children are growing up surrounded by, and becoming increasingly familiar with digital technology. At Templemoor Infant and Nursery School it is our intention to model and educate our pupils on how to use technology positively, responsibly and safely.

Through our teaching we aim to give our children opportunities to develop logical thinking skills, use decomposition to break down problems, use algorithms to think about how things work, recognise patterns, abstract important and essential information, and evaluate their work. We aim to harness their imagination and enable them to dream up solutions for problems that don't even exist yet.

Technology is essential; whether at home, at play or eventually, at work and computational thinking is a skill children must learn if they are to participate effectively in this digital world.

Implementation

At Templemoor, our knowledge rich curriculum is centered around the four key areas, as outlined in the National Curriculum. These are Online Safety, Information Technology, Digital Literacy and Computer Science. The children experience all four strands in each year group, from Nursery to Year Two. This comprehensive progression scheme ensures every element of the computing curriculum is embedded and the knowledge/skills statements build year on year to deepen and challenge our learners.

We primarily follow the Purple Mash scheme of work but incorporate other aspects to best suit the needs of our children. They have opportunities to design and build programs, develop their ideas, present information, create art and produce a range of content using many different apps and software.

Running through all of the strands is e-safety, following the Education for a Connected World framework. Children will learn to be discerning about the validity, reliability and relevance of information they find online. We believe it is crucial to teach them how to keep themselves and others safe and enable them to realise their responsibility to be inspirational and responsible in this digital age.

Early Years Foundation Stage

Our children begin their Computing journey in Early Years, with access to iPads, remote controlled toys, 'BeeBots', as well as some use of laptops/computers to familiarise themselves with a desktop

setup. They start by learning how to operate simple equipment, showing skill in making toys work by pressing parts to achieve effects. They then progress onto beginning to develop mouse and keyboard skills and navigating and completing an age-appropriate program independently. Teachers facilitate children's curiosity with challenge and modelling how to use a range of equipment accurately and safely.

Key Stage One

In Key Stage One children continue their computing journey with iPads, laptops and 'BeeBots', progressing onto 'Botley'. The children learn to understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. They are taught to create and debug simple programs and use logical reasoning to predict the behaviour of simple programs. They are shown how to use a range of technology purposefully to create, organise, store, manipulate and retrieve digital content as well as recognise common uses of information technology beyond school. They are taught to 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.

Each of these skills will be taught through exciting half termly units. These units are practical and engaging and allow computing lessons to be hands on, covering a broad range of computing components.

Impact

After the implementation of this robust Computing curriculum, children at Templemoor will be confident users of technology, able to join the rest of the world on its digital platform.

They will acquire the age-appropriate related knowledge and skills linked to the Computing curriculum at the end of EYFS and Key Stage 1. Class teachers use Key Assessment Criteria forms and Insight as a tool to assess the knowledge and understanding of the children.

Children will be equipped with the skills and knowledge to use technology effectively, at home and in school, confidently and safely. The biggest impact we want to instil on our children is that they understand the consequences of using the internet and that they are also aware of how to keep themselves safe online.

As children become more confident in their abilities in Computing, they will become more independent and key life skills such as problem-solving, logical thinking and self-evaluation become second nature.

Key Concepts

Online Safety

Information Technology

Digital Literacy

Computer Science

Enriching the Curriculum (Cultural Capital)

- Year group assemblies to showcase Computing achievements
- Learning about technological advances
- Learning linked to real life situations (i.e. creating a spreadsheet to plan a party, creating an animated book to share with other children etc)
- Celebrating 'Safer Internet Day' annually
- Spotlight online presentations
- Hands on experience with computer applications and robotic toys
- 'Science Week', inviting guest speakers in to speak about their jobs linking to Computing