Computing

Intent

The intent for Computing is based on our curriculum driver: Be Brave. This driver underpins our approach to learning by providing opportunities for all our children to challenge themselves, take risks and build resilience. We will offer a range of engaging and intellectually stimulating activities and experiences, which will lead to changes being made to the children's long-term memory. Our intent is that pupils:

- progressively build on skills to create a variety of programs, systems and a range of content
- develop skills in order to use digital information in an effective way
- are confident in using code and can understand and apply the fundamental principles and concepts of computer science
- become computational thinkers
- are confident, creative and independent learners when working with information technology
- know about and understand the technology around them
- recognise the benefits of using technology and evaluate its use
- understand the impact their actions have online
- develop positive attitudes to computing
- connect with others safely and respectfully and become responsible digital citizens.

Implementation

Development of computing skills begins in our Foundation stage where we have identified aspects from Development Matters which we believe are crucial building blocks for Early Computing. The Key Stage One computing curriculum is built upon the Teach Computing Curriculum. We have adapted the units to provide a broad range of experiences over the year and give pupils time to become confident using the technology within school. We have split our academic year into three terms. Each term has been assigned a key focus, which builds on from previous learning. The three areas for Computing are as follows:

- Autumn Term: Technology around us

- Spring Term: Programming
- Summer Term: Creating Media

In the Autumn term, children explore technology around them and the benefits of technology in society. They spend time using technology to create media (Y1) and pictograms (Y2), reflecting on the impact of using technology as they do. Children will also begin to consider how to use technology responsibly, staying safe and happy. After this, in the Spring term, children can then begin to explore how digital systems work and put this knowledge to use by programming a floor robot (Y1) and an Ozobot (Y2). Children will learn to predict the outcome of programs, design their own algorithms and develop their problem-solving skills when debugging. Using the knowledge of the uses and benefits of technology and how digital systems work, in the Summer Term children can use information technology to create a range of content. In Year 1, children familiarise themselves with typing on a keyboard, creating and changing text. In Year 2, children use their own patterns to make music with both percussion instruments and digital tools, sharing their creations.

Longitudinal learning is a fundamental part of the learning in Computing and underpins every lesson. It is incorporated into each Computing lesson and is supported by regular routines and activities. The longitudinal learning in Computing is, 'to stay safe and happy when using technology'.

At the start of each session, the children orally revisit and recall prior learning. The quality of teaching and learning in Computing is monitored and moderated throughout the year. Lessons are designed to promote collaborative and active learning using practical and meaningful experiences to enable opportunities for all children to succeed.

Online Safety

We teach our children how to use technology safely and responsibly. This enables them to reap the benefits of the online world and technologies whilst being able to minimise risk to themselves or others. A comprehensive curriculum for online safety is in place to ensure key messages are reinforced throughout the year as part of circle times. These messages are also shared in collective worship and shared with parents regularly over the school year. We use Evolve to support the teaching of objectives from the Education for a Connected Framework, each term exploring different strands from the framework.

Autumn One	Autumn Two	Spring One	Spring Two	Summer One	Summer Two
Copyright and Ownership Self-image and Identity	Online Relationships Privacy and Security	Online Bullying	Health, Wellbeing and Lifestyle	Online Reputation	Managing Online Information

Digi Daisy is our school's online safety mascot. She was designed by a pupil and hand made by a puppet company. Her healthy habits remind children how to safe and happy online and are shared with children during computing lessons, respect lessons and in collective worship. She also regularly features in our school newsletter sharing top tips and resources for parents and carers to help keep their children safe and happy online.

Impact

All children will be exposed to high quality teaching and learning that contributes to deep learning and changes being made to their long-term memory. We assess this against the Computing knowledge progression framework we have created for our school. As a school, we understand that deep learning takes place when knowledge and skills are revisited regularly. The children will be given the opportunity to apply their existing knowledge and skills. New learning will be taught all the time whilst revisiting prior learning. In this way, learning will take place over an entire Key Stage, enabling the children to revisit learning and reflect regularly whilst adding new ideas, knowledge and skills. By the end of their time at Woodthorpe Infant School, our children will have developed life skills needed to become independent and resilient users of technology who embrace and utilise new technology to flourish in a socially responsible and safe way. These skills are important for Key Stage 2 as well as living in our diverse society.

Computing and SEND

For pupils with SEND, adaptations may be made in Computing which are based on the child's individual needs. We ensure that pupils with SEND are appropriately challenged in Computing by:

- Using teaching methods which match the needs of children.

- Chunking content into smaller steps and ensuring the curriculum is designed to reduce excessive or unhelpful demands on working memory.
- Ensuring adaptations are based on individual needs and aim to retain ambition for pupils with SEND.
- Understanding that, for pupils with more complex SEND needs, it may be appropriate to have different curriculum expectations.