Curriculum Statement – Computing

At The Littletons, our whole curriculum is underpinned by our school vision:

"Just as God has created every individual with unique talents and skills, our school community provides a nurturing and inclusive environment, where everyone is encouraged to explore their individual creativity and to confidently use their talents in order to achieve their God given potential and to make the world a better place."

Our curriculum fulfils the National Curriculum requirements.

Intent:

COMPUTING

We can all be successful

We are problem solvers

Our computing curriculum is designed to prepare children for the digital world in which we live, giving them the wisdom, knowledge, patience and skills to equip them for a rapidly changing world which relies on technology. The safe use of the internet encourages independent learning to acquire knowledge and to access a global community. Having the essential basic skills to be digital confident ensures that everyone is given the confidence to achieve. Logical and critical thinking skills are used to develop problem solving skills and computational thinking in a digital world which are transferrable to other areas of the curriculum and beyond school. Practical use of technology is supplemented with 'unplugged' theoretical learning.

We learn the basic skills to use technology

We discuss our work using accurate technical language

We know how to stay safe online

We explore a range of technology both practically and 'unplugged'

We learn about how technology is used in real life and in different subjects

Implementation:

We use Teach Computing https://teachcomputing.org/ from the National Centre for Computing Excellence as the basis for our curriculum.

All learning outcomes can be described through a high-level taxonomy of ten strands, ordered alphabetically as follows:

Teach Computing Taxonomy		
Abbreviation	Strand	Description
NW	Networks	Understand how networks can be used to retrieve and share information and come with associated risks
CM	Creating Media	Select and create a range of media including text, images, sounds and video
DI	Data & Information	How is data stored, organised and used to represent real world artefacts and scenarios
DD	Design & Deveopment	The activities involved in planning, creating and evaluating computing artefacts
CS	Computing Systems	What is a computer, how do it's constituent parts function together as a whole
IT	Impact of Technology	How individuals, systems and society as a whole interact with computer systems
AL	Algorithms	Being able to comprehend, design, create and evaluate algorithms
PG	Programming	Creating software to allow computers to solve problems
ET	Effective Use of tools	Use software tools to support computing work
SS	Safety & Security	Understanding risks when using technology and how to protect individuals and systems

Primary themes	Computing systems and networks	Programming	Data and information	Creating media
Taxonomy strands	Computer systems Computer networks	Programming Algorithms Design and development	Data and information	Creating media Design and development
	Effective use of tools			
	Impact of technology			
	Safety and security			

The units for key stages 1 and 2 are based on a spiral curriculum. This means that each of the themes is revisited regularly (at least once in each year group), and pupils revisit each theme through a new unit that consolidates and builds on prior learning within that theme. Key vocabulary is included within each unit.

This curriculum is supplemented with Project Evolve resources, which focus on online safety and well-being. Project Evolve sessions are included at the start of lessons to ensure that online safety is revisited regularly, which supports consistent understanding of the digital landscape and online harm.

We use a range of technology, devices, programs and app to teach Computing, including working on iPads, laptops and Microbits. Some lessons may be 'unplugged' as children learn about the theoretical side of technology and online safety.

Impact:

By the time children leave The Littletons, we expect them to:

- Be confident in using a range of technology in a variety of ways.
- Have a varied and rich bank of vocabulary to support them in later life.
- Have solid basic skills, such as typing and creating presentations.
- Understand how Computing is used in everyday life.
- Know how to stay safe online.
- Be able to solve problems involving technology.
- Have the patience to persevere when technology goes wrong or does not work as expected.

Children's learning will be assessed through:

- Seesaw assessment tasks throughout each unit
- Practical presentation of work
- Discussion tasks
- Written/paper-based tasks

Each child from Year 1 upwards has a Seesaw account which is used internally to record work. Children only have access to this at school. Children may be set specific assessment tasks or can record aspects of their learning journey within their Seesaw journal. At least one piece of work will be recorded through Seesaw in each unit of the Computing curriculum, to demonstrate their learning. This may vary between year groups as children will be able to record their learning more easily as they move through the school and become more proficient using Seesaw.