



Computing (Appendix 8)

Member of Staff Responsible: Mr Kevin Robinson / Miss Amy Shepherd

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INTENT:

At Leigh St Peter's CE Primary, we aim to create a high-quality computing curriculum which equips our pupils to use computational thinking and creativity to understand and use technology in their daily lives.

The national curriculum for Design and Technology aims to ensure that all pupils:

- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.
- Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems.
- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- Are responsible, competent, confident and creative users of information and communication technology

IMPLEMENTATION:

Our curriculum will be implemented to ensure that:

- Appropriate links are made with mathematics, English, science and design technology and provide insights into natural and artificial systems.
- Everyone understands that the main principle of computing is computer science. Encompassing key principles of information technology, how systems work, and how to this knowledge can be applied when developing skills in programming.
- Through development of knowledge and understanding, pupils are equipped to be able to use information technology to create programs, systems and arrange of content.
- Our pupils become digitally literate – able to use and express themselves and develop their ideas through, information and communication technology – at a suitable level for the future workplace and as active participants of a digital world.
- Our children become confident, competent and discerning users of digital technology which will prepare them for participation in a rapidly changing world.

IMPACT:

The outcomes of the pupils in our school are an important measure of our success. By the end of each key stage we expect our children to be able to demonstrate key curriculum skills, which include:

KEY STAGE 1:	KEY STAGE 2:
<ul style="list-style-type: none"> ▪ Understand what algorithms are. ▪ Create and debug simple programs. ▪ Use logical reasoning to predict the behaviour of simple programs. ▪ Use technology purposefully to create, organise, store, manipulate and retrieve digital content. ▪ Recognise common uses of information technology beyond school. ▪ Use technology safely and respectfully. ▪ Keep 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. 	<ul style="list-style-type: none"> ▪ Design, write and debug programs that accomplish specific goals. ▪ use sequence, selection, and repetition in programs. ▪ use logical reasoning to explain how some simple algorithms work. ▪ understanding 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. ▪ use search technologies effectively ▪ selecting, using and combining a variety of software (including internet services) on a range of digital devices to design and create a range of programs. ▪ use technology safely, respectfully and responsibly; recognising acceptable/ unacceptable behaviour; identifying a range of ways to report concerns about content and contact.



We use discrete subject coverage documents to ensure coverage and monitor aspects of each subject taught:

COMPUTING COVERAGE

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
Y1	1.1 We Are Treasure Hunters Using Programmable Toys	1.2 We Are TV Chefs Filming the steps of a recipe	1.3 We Are Painters Illustrating an E-book	1.4 We Are Collectors Finding images using the WWW	1.5 We Are Storytellers Producing a talking book	1.6 We Are Celebrating Creating a card digitally
Y2	2.1 We Are Astronauts Programming on screen	2.2 We Are Games Testers Exploring how computer games work	2.3 We Are Photographers Taking better photos	2.4 We Are Researchers Researching a topic	2.5 We Are Detectives Collecting clues	2.6 We Are Zoologists Collecting data about bugs
Y3	3.1 We Are Programmers Programming an animation	3.2 We Are Bug Fixers Finding and fixing bugs in programs	3.3 We Are Presenters Video Conferencing	3.4 We Are Vloggers Making and sharing a short screencast presentation	3.5 We Are Communicators Communicating safely on lined	3.6 We Are opinion pollsters Collecting and analysing data
Y4	4.1 We Are Software Developers Create a simple educational game	4.2 We Are Toy Designers Prototyping an interactive toy	4.3 We Are Musicians Producing digital music	4.4 We Are HTML editors Editing and writing HTML	4.5 We Are Co-Authors Producing a wiki	4.6 We Are Meteorologists Presenting the weather
Y5	5.1 We Are Games Developers Developing an interactive game	5.2 We Are Cryptographers Cracking codes	5.3 We Are Artists Fusing geometry with Art	5.4 We Are Web Developers Creating a website about cyber e-safety	5.5 We Are Bloggers Sharing experiences and opinions	5.6 We Are Architects Creating a virtual space
Y6	6.1 We Are Adventure Gamers Making a text-based adventure game	6.2 We Are Computational Thinkers Mastering algorithms	6.3 We Are Advertisers Making a film	6.4 We Are Network Technicians Exploring computer networks	6.5 We Are Travel Writers Using media	6.6 We Are Publishers Creating a Yearbook/magazine

