



Computing Curriculum

The ability to use technology in our constantly-evolving world is vital to all of our pupils. Our aim at LWPS is to ensure our young people become digitally literate so that they are well-versed in the language of computing and confident in its many uses. Each year, the children undertake learning which consolidates and builds on previous learning and utilises common programs within the Microsoft suite. Our curriculum is based around the Purple Mash resources thus ensuring a wide range of knowledge and skills are taught throughout the academic year.

Computing has embedded links with mathematics, science and design and technology, and provides insights into both natural and artificial systems. There are many opportunities for children to work collaboratively as well as individually, and it is through these sessions that children develop their resilience, sometimes taking several attempts to achieve the desired effect. Children at LWPS work with laptops and iPads to achieve these goals.

Computing is essential for all children as it is at the heart of every modern household and therefore will be key to their journey through life. As Digital Natives, children at LWPS need to be able to use and express themselves as well as develop their ideas through information and communication technology at a level suitable for the future workplace and as active participants in a digital world. We strive for pupils who are equipped to use information technology to create programs, systems and a range of content whilst instilling fundamental behaviours, which will empower children to keep themselves safe online.

The teaching of the Computing curriculum at LWPS is practical with the children exploring and experimenting rather than spending time listening to lengthy instructions. This learner-centred approach enables all children to be successful and make excellent progress while also supporting them in their determination and aspiration.

The overall aim is to equip pupils with a high-quality Computing education in order for them to use computational thinking and creativity to understand and change the world.

Determination, Independence, Aspiration, Curiosity and Community-Mindedness taught through our core Christian values of compassion, resilience and trust

Determination As digitally literate individuals, we expect our children to strive for excellence in all that they do and demonstrate strong intent to get the job done and to do it to the best of their ability. We want them to show this academically as well as in their generosity of spirit within our whole school community. Our children are *resilient* learners, constantly showing their growth mindset in all that they do, especially when working within our computing programme of learning and striving to become digital natives.

Independence As future leaders and aspiring technicians, our children self-organise and self-regulate well, knowing what to do and where to go for further support if and when they need it. They show great *trust* in one another and the adults around them, knowing who they can go to for help or support if and when needed. We expect our children to exercise their independence at all levels so that they become confident and capable young people ready for their next challenge at each stage of their development.

Aspiration As aspiring technical enthusiasts, our pupils are ambitious, showing a drive to follow their dreams and apply the skills and knowledge they are learning to all areas of their learning. They are excited by their programme of study and constantly strive for challenge building their *resilience* as they learn.

Curiosity As digital natives, we expect our children to be active participants in their learning, always wanting to expand their knowledge and skills. They are driven by rich questioning that extends their thinking and challenges their beliefs. We want our children to question their own understanding and beliefs showing an understanding of the world around them, demonstrating *compassion* for those around the world.

Community-Mindedness As socially-conscious individuals, our children understand what it means to be mindful of those in and around our school community. They fundraise extensively, showing *compassion* in all that they do. They understand how we are all different and yet the same, and what impact their own actions have on those around them. They care deeply for one another and show tolerance and respect in all that they do. They use their technological skills to investigate issues around the world, aiming to understand the many different facets to social, economic, religious and cultural problems better.

Programme of Study

	EYFS	Year 1	Year2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
Computers	Know and talk about the different factors that support their health and wellbeing: sensible amounts of screen time	Recognise common uses of information technology in the home and school environment.	Recognise common uses of information technology beyond school.	Recognise familiar forms of input and output devices and how they are used. Make efficient use of familiar forms of input and output devices.	Use other input devices such as cameras or sensors.		
Networks				Understand that computer networks enable the sharing of data and information. Understand that the internet is a large network of computers and that information can be shared between computers.	Understand what servers are and how they provide services to a network.	Begin to use internet services to share and transfer data to a third party.	Understand how computer networks enable computers to communicate and collaborate. Begin to use internet services within his/her own creations to share and transfer data to a third party.
Using computers	Develop their small motor skills so that they can use a range of tools competently, safely and confidently	Use technology purposefully to create digital content.	Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Use technology purposefully to create digital content	With support select and use a variety of software to accomplish goals.	With support select and use a variety of software on a range of digital devices. With support select, use and combine a variety of software on a range of digital devices to	Independently select and use appropriate software for a task. Independently select, use and combine a variety of software to design and create	Independently select, use and combine a variety of software to design and create content for a given audience, including collecting, analysing,

			comparing the benefits of different programs.		accomplish given goals.	content for a given audience.	evaluating and presenting data and information. Design and create a range of programs, systems and content for a given audience. Independently select, use and combine a variety of software to collect, analyse, evaluate and present data and information.
E--Safety		Understand where to go for help and support when he/she has concerns about content or contact on the internet or other online technologies.	Use technology safely and keep personal information private.	Use technology safely and respectfully, keeping personal information private. Use technology safely and recognise acceptable and unacceptable behaviour.	Use technology responsibly and understand that communication online may be seen by others. Understand where to go for help and support when he/she has concerns about content or contact on the internet or other online technologies.	Understand the need to only select age appropriate content.	Use technology respectfully and responsibly. Identify a range of ways to report concerns about content and contact in and out of school.
Searching the Net				Use simple search technologies. Use simple search technologies and	Understand how results are selected and ranked by search engines.	Use filters in search technologies effectively.	Be discerning when evaluating digital content. Use filters in

				recognise that some sources are more reliable than others.		Use filters in search technologies effectively and appreciates how results are selected and ranked.	search technologies effectively and is discerning when evaluating digital content.
Coding		Predict the behaviour of simple programs. Understand what algorithms are and how they are implemented on digital devices.	Use logical reasoning to predict the behaviour of simple programs. Create simple programs. Create and debug simple programs. Debug simple programs by using logical reasoning to predict the actions instructed by the code. Understand that programs execute by following precise and unambiguous instructions.	Design, write and debug programs that control or simulate virtual events. Use logical reasoning to explain how some simple algorithms work.	Decompose programs into smaller parts. Use logical reasoning to detect and correct errors in algorithms and programs. Select, use and combine a variety of software, systems and content that accomplish given goals.	Design, input and test an increasingly complex set of instructions to a program or device. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems. Design, write and test simple programs that follow a sequence of instructions or allow a set of instructions to be repeated. Design write and test simple programs with opportunities for selection, where a particular result will happen based on actions or situations controlled by the	Include use of sequences, selection and repetition with the hardware used to explore real world systems. Solves problems by decomposing them into smaller parts. Create programs which use variables. Use variables, sequence, selection, and repetition in programs. Use logical reasoning to explain how increasingly complex algorithms work and to detect and correct errors in algorithms and programs efficiently.

						user. Use logical reasoning to explain how increasingly complex algorithms work to ensure a program's efficiency.	
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