



Lovers' Lane Primary and Nursery School



Computing Curriculum

Intent, Implementation, Impact Statement

Intent	Implementation	Impact
<p>At Lovers' Lane it is our intention to enable children to find, explore, analyse, exchange and present information. We also focus on developing the skills necessary for children to be able to use information in a discriminating and effective way. We want children to know more, remember more and understand more in computing so that they leave primary school computer literate. Computing skills are a major factor in enabling children to be confident, creative and independent learners and it is our intention that children have every opportunity available to allow them to achieve this. We intend to build a computing curriculum that develops pupil's learning and results in the acquisition of knowledge of the world around them that ensures all pupils can</p>	<p><u>Overview</u> Lovers' Lane Primary school follows the Purple Mash scheme of work which covers the whole primary curriculum with a clear structure of progression building on children's previous knowledge. It uses resources embedded within the platform which allows pupils to save, combine and import content which can be shared across the school safely. The Purple Mash platform is also used across the curriculum to embed the use of technology in other subjects.</p> <p><u>In Early Years Foundation Stage</u> Children in our Early Years provision recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. They will be exposed to the understanding of internet safety as they explore the world around them and how technology is an everyday part of their learning and understanding of the world.</p> <p><u>They have opportunities to learn to:</u></p> <ul style="list-style-type: none"> • Operate simple equipment. • Retrieve information from computers. • Complete simple programs on a computer. • Use ICT hardware to interact with age appropriate computer software. <p><u>In Key Stage 1</u> Pupils are taught:</p> <ul style="list-style-type: none"> • To understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. • To create and debug simple programs and use logical reasoning to predict the behaviour of simple programs. 	<p>Our Computing Curriculum is high quality, well thought out and is planned to demonstrate progression. Children will be confident users of technology, able to use it to accomplish a wide variety of goals, both at home and in school. Children will have a secure and comprehensive knowledge of the implications of technology and digital systems. This is important in a society where technologies and trends are rapidly evolving. Children will be able to apply the British values of democracy, tolerance, mutual respect, rule of law and liberty when using digital systems.</p> <p>If children are keeping up with the curriculum, they are deemed to be making good or better progress.</p> <p>We measure the impact of our Computing Curriculum by the following methods:</p> <ul style="list-style-type: none"> • Pupil discussions and interviewing the pupils

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<p>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. We intend to build a computing curriculum that prepares pupils to live safely in an increasingly digital British society where pupils can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.</p>	<ul style="list-style-type: none">• 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.• 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. <p><u>In Key Stage 2</u> Pupils are taught:</p> <ul style="list-style-type: none">• To design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.• To use sequence, selection, and repetition in programs, use logical reasoning to explain how some simple algorithms work and correct errors in algorithms and programs.• To understand computer networks, including the internet, and the opportunities they offer for communication and collaboration. They will use search technologies effectively, learn to appreciate how results are selected and ranked, and be discerning in evaluating digital content.• To select, use and combine a variety of software (including internet services) on a range of digital devices to create a range of programs, systems and content that accomplish given goals.• To use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. <p><u>Whole School</u> Teaching and learning should facilitate progression across all key stages within the strands of digital literacy, information technology and computer science. Children will have the opportunity to explore and respond to key issues such as digital communication, cyber-bullying, online safety, security, plagiarism and social media. Wider Curriculum links and opportunities for the safe use of digital systems are considered in wider curriculum planning.</p>	<p>about their learning (pupil voice).</p> <ul style="list-style-type: none">• Moderation staff meetings with opportunities for dialogue between teachers.• Photo evidence and images of the pupils practical learning.• A reflection on standards achieved against the planned outcomes.• Learning walks and reflective staff feedback (teacher voice).• Dedicated Computing leader time.
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	<p>The importance of online safety is shown through displays within the learning environment and computer suite. Parents are informed when issues relating to online safety arise and further information/support is provided if required. As well as opportunities underpinned within the scheme of work, children will also spend time further exploring the key issues associated with online safety.</p>	
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Intent:

Know more, remember more and understand more: vocab spine computing words, KAGAN groups, deployment of TA, pre-teaching, focused LO's with recap of prior learning, PM builds on skills learnt each week.

Computer literate: someone's knowledge and ability to use a computer and other Information and Communications Technology (ICT) effectively. Everything from using a computer's hardware and software to perform basic tasks to more advanced computer programming. Computer literacy also includes knowing the meaning of key computing terms.

Abstraction, logic, algorithms and data representation:

Abstraction - As an everyday user of a computer, however, it isn't necessary to understand how all of these complex processes work, as you are given a mouse and keyboard that allow you to access all of the functions of a computer. The process of hiding the complexity of a computer system is known as abstraction.

KS1 - As an everyday user of a computer, however, it isn't necessary to understand how all of these complex processes work, as you are given a mouse and keyboard that allow you to access all of the functions of a computer. The process of hiding the complexity of a computer system is known as abstraction.

KS2 – Mainly covered in coding and programming. As an everyday user of a computer, however, it isn't necessary to understand how all of these complex processes work, as you are given a mouse and keyboard that allow you to access all of the functions of a computer. The process of hiding the complexity of a computer system is known as abstraction.

Logic - computational logic, or computational thinking, we can work step-by-step to understand a problem and develop a solution.

Algorithms are a set of instructions to complete a task.

Data representation: form in which data is stored, processed, and transmitted

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Writing computer programs: 2Code in KS2, KS1 Scratch Jnr, introducing Swift Playground

Live safety: Making the right choices. Password safety, upsetting Internet content, social media sharing, online friendship, researching on the Internet, digital footprints and digital citizenship, email simulations (when these are opened the pupil will appear to receive an email in their inbox which will simulate an online safety scenario and feedback on appropriate actions to take). Safer Internet day. 2Connect to create a class online safety concept map.

Implementation:

Online safety – display to be created in ICT suite. Digital Leaders. Pupil worry forms for Online Safety box. Safer Internet Day. Link to PSHE. Parent emails re safety, info on website.

Impact:

80% of primary age children will go on to do a job that hasn't been created yet.

800 million people could lose their jobs to automation by 2030.

Social media connects almost half of the entire global population. It enables people to make their voices heard and to talk to people across the world in real time. However, it can also reinforce prejudices and sow discord, by giving hate speech and misinformation a platform, or by amplifying echo chambers.

British Values:

Respect civil and criminal law - Downloading music/film from "free" sources. Posting offensive/slandorous material on social media. Cyber-bullying. Cryptography/Encryption. Hackers.

Ethical issues - Online 'netiquette' – how to engage in an online community positively including how to respond to and debate with others. How to be a respectful digital citizen.

Democracy - Ensuring all student's work and views are appreciated through online collaboration tools such as PM. How to select information from valid online sources that reflect different viewpoints and the disadvantages of relying on certain sites. The value of blogs to understand different viewpoints on a range of topics.

Life in modern Britain - how to use the internet positively including social media. How to leave a positive digital footprint and the impact this has on their lives including in the years to come. The history of computing and the influence of key historical figures from the UK in the development of modern day technology.

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