

Computing at Langford Village Community Primary School

Intent

Our Computing Curriculum ensures children are prepared for their digital future; knowing how to be safe and resilient online and have experience in the fundamental principles and concepts of computing.

Implementation

The use of information and communication technology is an integral part of the national curriculum and is a key skill for everyday life. Computers, tablets, programmable robots, digital and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. At Langford Village Community Primary School, we recognise that pupils are entitled to quality hardware and software and a structured and progressive approach to the learning of the skills needed to enable them to use it effectively.

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Early years

Children are given a broad, play-based experience of ICT in a range of contexts, including outdoor play. ICT is not just about computers. Early Years learning environments feature ICT scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities to 'paint' on the whiteboard or program a toy. Recording devices can support children to develop their communication skills. This is particularly useful for children who have English as an additional language or with speech and language challenges.



Through the national curriculum for computing all pupils are taught to:

- Understand and apply the fundamental principles of computer science, including logic, algorithms, data representation and communication
- Analyse problems in computational terms and have repeated practical experience of writing computer programs in order to solve such problems
- Evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- Be responsible, competent, confident and creative users of information and communication technology

Key Stage 1

By the end of key stage 1 pupils are taught to:

- Understand what algorithms are, how they are implemented as programs on digital devices and that programs execute by following a sequence of instructions
- Write and test simple programs
- Use logical reasoning to predict and computing the behaviour of simple programs
- Organise, store, manipulate and retrieve data in a range of digital formats
- Communicate safely and respectfully online, keeping personal information
- Private, and recognise common uses of information technology beyond school

Key Stage 2

By the end of key stage 2 pupils are taught to:

- Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- Use sequence, selection and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs
- Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs
- Understand 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



- Describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information

Impact

Children at Langford Village Community Primary School will be equipped with the confidence and capability to use ICT safely and effectively. They will be able to find, explore, analyse, exchange and present information. By the end of their journey at Langford, children's digital learning and communication will be enhanced so they are equipped to respond to new developments throughout later life.

The impact of Computing is measured through:

- In school attainment tracking
- Subject Leader monitoring: lesson visits, auditing of folders, assessment analysis, pupil interviews and questionnaires, staff interviews and questionnaires
- Governor monitoring

