Leominster Primary School

The Intent, Implementation and Impact of our computing Curriculum

INTENT

At Leominster Primary school, we intend to prepare our pupils for their future, in the digital world, by providing them with various opportunities to gain knowledge and develop their skills. We teach computing using the aims and objectives from the National Curriculum, embedding it within other subjects in a creative curriculum. The use of technology is now essential in many aspects of life, both socially and vocationally, and it is seen as vital that children are equipped with the skills to embrace emerging technology and to use it efficiently. Our computing curriculum focuses on the progression of skills in computer science, information technology and online safety by repeatedly revisiting these strands through a range of topics throughout each year group, therefore embedding learning and developing skills. We ensure that all pupils are competent in understanding how to use technology safely and how to safeguard their own personal data.

IMPLEMENTATION

At Leominster Primary school computing is taught through the three main strands of information technology, computer science and internet safety, to ensure a broad range of skills and understanding. At the start of each year, the children are taught about safety when online, including when using computer games and apps. We ensure that this content is updated regularly to keep up with current trends, including sending advice home to parents and hosting workshops, in order to support them in the understanding their children's online safety .On top of this, online safety is discussed regularly while children are using the internet. Computer science begins in EYFS where the children are introduced to BeeBots for basic programming. This introduces preparatory language and helps them to create and debug simple programs, developing their problem-solving skills. Further up the school, computer science is taught through Espresso Coding where children will begin plan and debug more complex programs. This program enables pupils to build upon their skills, step by step, both through the lessons and through the years. Information technology is taught through the creative curriculum topics within our school. As part of information technology, pupils learn to express themselves and develop their ideas through ICT, by creating and presenting using multimedia, ensuring children can use technology for a range of purposes not just in discrete computing lessons.   At Leominster Primary School, we have a variety of resources to support the learning, including access to a computer suite, laptops and iPads.

All children have opportunities for:

By the end of Key Stage 1 pupils should:

Coding

- understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs

Information technology

- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school

Internet safety

- 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

By the end of Key Stage 2 pupils should:

Coding

- design, write and debug 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
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

Information technology

- 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
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

Internet safety

- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

Equality of Opportunity

Teaching of Computing is in accordance with the present policy for Equal Opportunities. We aim to provide equal access to Computing for those pupils with Special Educational Needs, and for pupils who are more able.

IMPACT

We measure this through:

- teacher assessment, each strand is assessed and pupils are graded (entering, within, secure and greater depth)
- assessment results and result analysis
- formative assessments throughout lessons
- summative assessment at the end of each unit
- anecdotal evidence and evidence from teacher reflective practice

Observations of teaching and learning show:

- engaged learners
- confident children willing to 'have-a-go', showing resilience and self-motivation
- active learning and dialogue between adults and children and between peers
- collaborative learning with opportunities for discussion with peers
- open ended questioning and exploration of objectives
- investigative approaches embedded within lessons
- targeted use of adults in the classroom, including focus groups
- a variety of ways to critically evaluate own and others work
- individual designs that show creativity and imagination