



Computing

at Kirkby on Bain CE Primary School

With computing being at the forefront of today's society, it is important that it is embraced and that children can access a rich, broad and balanced curriculum. At Kirkby on Bain CE Primary School, we aim to provide a high-quality computing education that equips our pupils to use computational thinking and creativity – enabling them to thrive in the ever-evolving world they live in. We are passionate about providing our pupils with the skills they need to succeed in a technologically advancing society.

Our computing curriculum has been based around the National Centre for Computing Education's 'Teach Computing Curriculum' - fully mapping the National Curriculum across Key stage 1 and key stage 2. It offers pupils a computing education, designed for mastery, using underlining pedagogies and covering all objectives categorised into three strands:

- Digital Literacy

Digital Literacy teaches children about the safe and responsible use of technology. At Kirkby on Bain Primary School, we believe that digital literacy should be at the centre of all teaching and learning where technology is involved and beyond to ensure that children become responsible members of society. This strand of computing is thread throughout our computing curriculum and follows the Education for a Connected World framework using resources from Project Evolve. Across school, our pupils will consider and explore: self-image and identity; online bullying; online relationships; online reputation; managing information online; health, well-being and lifestyle; privacy and security, and copyright and ownership.

- Information Technology

Information technology is about the use of computers for functional purposes, such as collecting and presenting information or using technology. In EYFS children will focus on selecting and using technology for a particular purpose. In Key Stage 1 pupils will learn to create digital media, including: painting, photography, music and writing. Pupils will also group and organise data using relevant computer programmes. In Key Stage 2 pupils will learn to create animation, edit audio, photos and videos, enhance skills in desktop publishing and create vector drawings.

- Computer Science

Computer Science introduces the children to how computers and networks work, as well as teaching children the basic principle of coding. In EYFS recognise that a range of technology is used for different purposes at home and in school. In Key Stage 1 pupils will explore computer systems and networks through exploring the uses for the technology around us. They will also explore algorithms through coding. In Key Stage 2 pupils will explore computer systems and networks through connecting computers, the internet, sharing information and communication. They will also explore sequencing, repetition, variables and inputs and output through programming. The Computer Science strand is underpinned with the pedagogy of unplugged, concrete and abstract application of skills and knowledge learnt. This ensures that all pupils can master concepts before moving on to the next stage, with no pupils left behind.

Computing will be monitored by the computing lead through lesson observations, pupil voice and the sharing of pupil work. Staff will use continual formative assessments to support learning and at the end of each unit of work will record whether pupils are working below, at or above the national expectation use the statements provide by the Teach Computing Curriculum.

Intent

At Kirkby on Bain, we believe the Computing Curriculum is not an isolated subject but one that is an integral part of all learning. The curriculum is progressively built upon to ensure that every child can enjoy and succeed in computing through planned, age-appropriate learning opportunities. Pupils are taught through whole-class interactive teaching, often working together to master concepts. Lessons aim to enhance pupil's enjoyment, resilience, understanding and attainment in computing. They are sequenced so that concepts are taught in logical steps with attention given to the fundamental skills needed. Curriculum equality is achieved with all pupils being given the time and opportunity to fully understand, explore and apply skills and ideas in different ways, through different applications and software across the wider curriculum. This enables pupils to fully grasp concepts and understand the relevance of their learning.

By the time pupils leave primary school we aim to develop pupils who:

- Are responsible, confident and creative users of technology, who apply computational thinking beyond the Computing curriculum.
- Become digitally literate and are active participants in a digital world.
- Know how to stay safe whilst using technology and on the internet, minimising risk to themselves and others.
- Understand and follow agreed E-Safety rules, and know who to contact if they have concerns, including the use of report buttons.
- Have repeated practical experience writing computer programs in order to solve problems, including logic & algorithms.
- Ask and answer questions through collection, analysing, evaluating and presenting data and information.
- Understand how digital networks work & the services they provide.
- Use search options effectively; understanding the need to evaluate the relevance of content.

Implementation

Our whole-school approach to the teaching and learning of Computing ensures that our curriculum builds on the learning, skills and knowledge of previous years; allowing pupils to develop and progress continuously. We aim to ensure that pupils can see the links in their learning across different subject areas – transferring and applying their skills. Computing opportunities, specifically with regards to using software to create, are embedded across the curriculum where they are appropriate to the topic and learning objective.

Impact

The curriculum is designed to build upon prior knowledge and lessons are sequenced to progress skills in a logical order. The impact and measure of our curriculum is to ensure that pupils achieve the age related expectations with regards to their knowledge, alongside a sound set of skills which will equip them for life in a technologically advancing world.

As a result of our thorough and robust curriculum, our children are confident using a wide range of hardware and software, and are diligent learners who can value online safety and show respect when communicating with one another. They are equipped, not only with the skills and knowledge to use technology effectively and for their own benefit, but more importantly, safely. As children become more confident in their computing skills, they will become more independent at key life skills such as problem-solving, logical thinking and self-evaluation.