



Computing Policy

Condovery and St Edward's CE Primary Schools

Last Reviewed: June 2021

Next Review: June 2023



Computing Curriculum Intent

It is our intent to provide all of our children with a high-quality education in computing which provides access to an ever changing and expanding digital world. We wish to develop a love of computing and provide children with the ability to enhance their knowledge, skills and understanding through different types of media whilst keeping safety at the forefront of their minds. Internet safety is of the utmost importance to us and to teach this effectively, children must have a clear understanding of the meaning of personal information and recognise their own responsibility in safeguarding. A core aspect of our computing teaching will be the teaching of computer science in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. We aim to make explicit links to other curriculum areas through a variety of digital platforms.

Computing Curriculum Implementation

Computing is used as an integral tool within our lessons to help children become creative thinkers and access learning in a variety of ways. To enable all children to access the full range of the computing curriculum, children all have additional core skills lessons in line with the project that they are studying in that term. This is to enable children to become effective users of not just the software but also the hardware through the development of mouse and keyboard skills and ensure increasing challenge for children as they progress through school. At times, areas of the computing curriculum is taught discretely. In addition, specific lessons relating to online safety are taught at the beginning of each term. We will use a wide variety of programs, ranging from Word Processing through to Scratch.

Computing Curriculum Impact

Children will have developed the knowledge, skills and understanding to help them access and use a range of technology in a safe and creative way. Children will have developed skills that equip them to use these skills in the wider world. As a school, we continually seek out ways to improve our teaching of computing by looking for new opportunities for both staff and children to learn with regards to Computing.

Curriculum aims

In Computing we aim to:

- develop children's understanding and application of the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.
- develop children's ability to analyse problems in computational terms and have practical experience of writing computer programmes in order to solve such problems.
- develop children's ability to evaluate and solve problems through their understanding of information technology.
- equip children to become responsible, competent, confident and creative users of information and communication technology.



Teaching and Learning

Children are taught computing from Year 1 to Year 6.

Computing lessons will take different forms from whole-class teaching, including modelling and demonstrations by the class teacher for pupils to follow, to the application of new skills within small-groups or as individuals.

Computing in the Early Years:

It is important that children experience play-based computing during the Early Years. Alongside laptops being available, children will also experience computing through role-play and non-computer based resources such as programmable toys and recording devices. Building confidence in how to care for these different resources, along with the communication and research opportunities they bring, begins during this learning stage.

By the end of Key Stage 1 pupils will be taught to:

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

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



Equal Opportunities/Special Needs

We believe that all children have equal rights to all aspects of the school. We aim to actively challenge any examples of inequality or stereotyping especially those based on race, beliefs, culture or sex. In order to ensure pupils with SEND access the full computing curriculum, teaching staff will provide the appropriate support.

Health and safety

Activities are planned with due regard to our Health & Safety policy. When working with tools, equipment and materials in practical activities and in different environments, pupils should be taught:

- about hazards, risks and risk control
- to recognise hazards, assess consequent risks and take steps to control the risks to themselves and others
- to use information to assess the immediate and cumulative risks
- to manage their environment to ensure the health and safety of themselves and others
- to explain the steps they take to control risks
- E-safety (please see E-safety policy).

Assessment

Pupils will be assessed in line with our Assessment policy.

Pupils receive live feedback and marking in every lesson.

Monitoring and Evaluating

Monitoring and evaluation of teaching and learning will take place in line with the schools monitoring and evaluating programme and where specifically mentioned on documents such as the development plan.

Role of the co-ordinator

- Take a lead in policy development
- Plan the sequential progression of computing teaching across the school
- Monitor the effectiveness of the teaching of computing
- Support colleagues, including induction of teachers new to the school.
- Attend and provide CPD
- Make resources available for a range of purposes.
- Liaise with other teaching staff regarding opportunities for children to participate in activities outside school.

Computing Resources

We currently have programmable toys, recording devices and a range of software on laptops, chromebooks and tablets to meet the needs of the Computing Curriculum.