



Computing Policy

Review Cycle;	Annual
Responsible group:	Headteacher, Computing Subject Leader and LGB
Implementation date:	September 2023
Next Review Date:	September 2024

Small steps to big dreams!

Vision

Mark 4: 30 - 32

We aim to provide educational excellence inspired by the world around us. To grow curious, responsible and confident learners within a caring community, in partnership with our families, upholding our Christian Values.

"The ones who are crazy enough to think they can change the world, are the ones who do" – Steve Jobs

Introduction

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 Clearwater Academy, 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. The purpose of this policy is to state how the school intends to make this provision.

Aims

The objectives of teaching Computing in our school are to enable children to:

- access a relevant, challenging and enjoyable curriculum for computing;
- meet the requirements of the national curriculum programmes of study for computing;
- use computing as a tool to enhance learning throughout the curriculum;
- respond to new developments in technology;
- equip pupils with the confidence and capability to use ICT and computing throughout their later life;
- develop the understanding of how to use ICT and computing safely and responsibly.

The national curriculum for computing aims to ensure that all pupils:

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

Teaching and Learning

At Clearwater Academy, we will cover the three main strands of the Computing curriculum Digital Literacy, Computer Science and Applying Technology. Following the NCCE scheme of work ensures the children experience a wide range of software and hardware and develop the appropriate computing skills. We believe that Computing capability should be achieved through core and foundation subjects. Where appropriate, ICT and computing is used to support learning in other subjects as well as develop the children's ICT and computing skills. Pupils may use ICT and computing independently, in pairs, alongside a teaching partner or in a group with a teacher.

The Early Years Foundation Stage

Within the foundation stage, children are exposed to a broad, play-based experience of ICT in a range of contexts, including through their outdoor play. Our early years learning environments feature ICT scenarios based real world experiences, such as in role play. Children gain an understanding of how devices work, refine their fine motor control and develop their language skills through activities such as drawing on the interactive whiteboard or driving a remote-controlled car. Recording devices can support children to develop their communication skills. This is particularly useful with children who have English as an additional language.

Key Stage One

The objectives of teaching Computing in KS1 are to enable children 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.

Key Stage Two

The objectives of teaching Computing in KS2 are to enable children 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.

Assessment

Assessing ICT and computing work is an integral part of teaching and learning and central to good practice. Teachers regularly assess capability through observations and by looking at completed work. Objectives to be assessed are taken from the national curriculum and formative assessments are carried out during and following short focused tasks and activities. Teacher's identify the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of the current concepts. Summative assessments review pupils' capability and provide a best fit level at the end of each term.

Resources

Clearwater Academy acknowledges the need to continually maintain, update and develop its resources. The need to invest in resources that will effectively deliver the strands of the national curriculum and support the use of ICT and computing across the school is paramount. Teachers are required to inform the Computing coordinator of any faults as soon as they are noticed. Resources, if not classroom based, are located in a central store. Every classroom from EYFS to Yr6 has a laptop connected to the internet and school network and an interactive whiteboard with sound facilities. There are 2 iPad trolleys containing 15 iPads each and 2 laptops trolleys containing 15 laptops each, with internet access available to use in classrooms.

Subject Leadership

The subject leader is responsible for monitoring the standard of the children's work and the quality of teaching. This may be through lesson observations, pupil conferencing and Foundation/Floor Book scrutiny.

The Computing coordinator will:

- be responsible for producing a Computing action plan and for the implementation of the Computing policy across the school.
- Offer help and support to all members of staff (including teaching partners) in their teaching, planning and assessment of Computing.
- Maintain resources and advise staff on the use of materials, equipment and books.
- Attend appropriate training and keep staff up to date with relevant information, initiatives and developments.
- Keep parents and governors informed on the implementation of Computing in the school.
- Help staff to use assessment to inform future planning.

Security

Use of ICT and computing will be in line with the school's 'acceptable use policy/E-safety policy'. Parents will be made aware of the 'acceptable use policy' at school entry. All pupils and parents will be aware of the school rules for responsible use of ICT and computing and the internet and will understand the consequence of any misuse.

Review

This policy will be reviewed regularly. Its effectiveness will be monitored by the Computing Subject Leader and will be based upon discussions with other members of staff, observation of children's work and re-evaluation of teaching plans. The outcome of the review will influence the future school development plan for Computing.