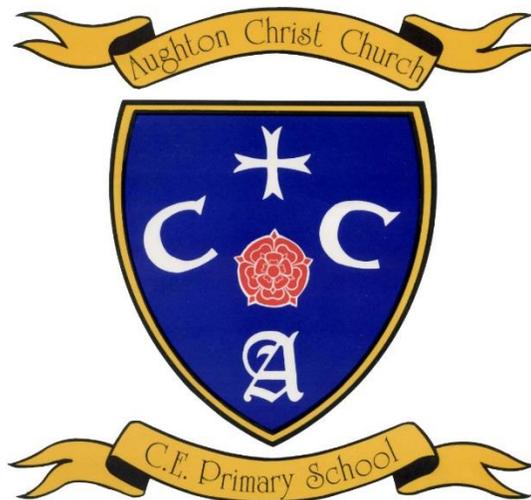


Policy Document

Aughton Christ Church C of E Primary School

Computing Policy



Reviewed: January 2024
Next Review date: January 2025



Computing Policy

Introduction

The 2014 national curriculum introduces a new subject, computing, which replaces ICT. This represents continuity and change, challenge and opportunity. It gives schools the chance to review and enhance current approaches in order to provide an even more exciting and rigorous curriculum that addresses the challenges and opportunities offered by the technologically rich world in which we live.

Computing is concerned with how computers and computer systems work, and how they are designed and programmed. Pupils studying computing will gain an understanding of computational systems of all kinds, whether or not they include computers. Computational thinking provides insights into many areas of the curriculum, and influences work at the cutting edge of a wide range of disciplines.

The Acceptable Use of the Computing Policy and the Online Safety Policies should also be read in conjunction with this policy.

The Nature of Computing

The new National Curriculum presents the subject as one lens through which pupils can understand the world. There is a focus on computational thinking and creativity, as well as opportunities for creative work in programming and digital media.

The introduction makes clear the three aspects of the computing curriculum: **computer science** (CS), **information technology** (IT) and **digital literacy** (DL).

The core of computing is 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. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate— able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Computing aims to prepare pupils to participate in a rapidly changing world in which work and other activities are increasingly transformed by access to varied and developing technology. We recognise that computing is an important tool in both the society we live in and in the process of teaching and learning. Pupils use different tools to find, explore, analyse, exchange and present information responsibly and creatively. They learn how to employ computing to enable rapid access to ideas and experiences from a wide range of sources. Our vision is for all teachers and learners in our school to become confident users of ICT so that they can

develop the skills, knowledge and understanding which enables them to use the appropriate resources effectively as powerful tools for teaching & learning.

Intent

Our curriculum meets the statutory needs of the national curriculum and is designed to meet the needs of all children at Aughton Christ Church C of E Primary School.

In consultation with parents, governors, children and staff, our broad and balanced curriculum is designed to continually build on knowledge and skills whilst supporting the children's spiritual, moral, cultural, mental and physical development. It prepares all children at the school for the opportunities, responsibilities and experiences of later life through developing resilience, independence and confidence.

Children are inspired to learn through engaging, meaningful and creative experiences which at every opportunity embrace the cultural diversity of our society. In addition to core skills and essential knowledge, children will develop an awareness and understanding of other people; their own community; the wider world and of their place within it to ensure they have opportunity to develop empathy, resilience, independence and confidence to become educated members of society.

Aims

- To enable children to become autonomous, independent users of computing, gaining confidence and enjoyment from their activities
- To develop a whole school approach to computing ensuring continuity and progression in all strands of the computing National Curriculum
- To use computing as a tool to support teaching, learning and management across all areas of the curriculum
- To provide children with opportunities to develop their computing capabilities in all areas specified by the Curriculum.
- To ensure ICT is used, when appropriate, to improve access to learning for pupils with a diverse range of individual needs, including those with SEN and disabilities.
- To maximise the use of computing in developing and maintaining links between other schools, the local community including parents and other agencies.

Objectives

In order to fulfil the above aims it is necessary for us to ensure:

- a continuity of experience throughout the school both within and among year groups
- the systematic progression through key stages 1 & 2
- that the National Curriculum programmes of study and their associated strands, descriptions and attainment target are given appropriate coverage
- that all children have access to a range of ICT resources
- that computing experiences are focused to enhance learning
- that cross curricular links are exploited where appropriate
- that children's experiences are monitored and evaluated
- that resources are used to their full extent
- that resources and equipment are kept up to date as much as possible

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- that staff skills and knowledge are kept up to date

Implementation

At Aughton Christ Church C of E Primary School, computing will be taught both as a discrete subject, and in a cross-curricular way when the opportunity presents itself. Lessons will follow the iCompute scheme of work to ensure that the sequence of learning shows progression within each year group and across the school.

The Computer Suite and the PCs distributed around the school will be used to help pupils access the Computing curriculum, along with a range of other resources such as IPADs and programmable toys.

The Computing subject leader and the Headteacher will continually monitor the resources required to deliver the Computing element of the new National Curriculum.

The new National Curriculum states that pupils should be taught to:

	Key Stage 1	Key Stage 2
Computer Science	<p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>Create and debug simple programs</p> <p>Use logical reasoning to predict the behaviour of simple programs</p>	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web</p> <p>Appreciate how [search] results are selected and ranked</p>
Information Technology	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>Use search technologies effectively</p> <p>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</p>

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Digital Literacy	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	Understand the opportunities [networks] offer for communication and collaboration Be discerning in evaluating digital content Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact
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EYFS

In the Foundation Stage, the Information Communication Technology requirements stated in the Knowledge and Understanding of the World element of the Early Learning Goals Foundation Curriculum, are covered in continuous and blocked units.

Understanding the World

ELG 15 Technology:

Early Learning Goal

Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.

Teaching & Learning

Teacher's planning is differentiated to meet the range of needs in any class including those children who may need extra support, those who are in line with average expectations and those working above average expectations for children of their age. A wide range of styles are employed to ensure all children are sufficiently challenged:

- Children may be required to work individually, in pairs or in small groups according to the nature or activity of the task.
- Different pace of working
- Different groupings of children - groupings may be based on ability either same ability or mixed ability.
- Different levels of input and support
- Different outcomes expected

The computing coordinator will review teachers' plans to ensure a range of teaching styles are employed to cater for all needs and promote the successful development of computing.

IMPACT

Pupils are informed about their progress in computing through discussion with class teachers about their individual achievements and goals.

Assessment also takes place through practical enquiry and questioning. Tasks are set up to assess the children's own knowledge and ability. Next steps are discussed during lessons.

This is shared with the children so that it impacts on future progress. Time is given to address error and make the suggested improvements.

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Much assessment in computing is carried out informally by teachers in the course of their teaching.

Health and Safety

To avoid continuous focus on the screen, teachers should model at regular intervals. Staff and pupils should avoid standing directly in front of the whiteboard projector. The projector beam should not be looked at directly.

Assessment

Assessment Computing is assessed both formatively and summatively. Formative assessment occurs on a lesson by lesson basis based on the lesson objectives and outcomes in the scheme of work. These are conducted informally by the class teacher and are used to inform future planning. Activities are planned at the end of a unit of work which enable summative assessments to take place where children's ICT capability is assessed – using the Lancashire KLIPs. Assessment of children's work in Computing is ongoing. Achievement is reported to parents at the end of each academic year. Children's work is saved to the server for reference throughout the year.

Inclusion

We recognise computing offers particular opportunities for pupils with special educational needs and gifted and/or talented children and /or children with English as an additional language for example.

Computing can cater for the variety of learning styles which a class of children may possess. Using computing can:

- increase access to the curriculum
- raise levels of motivation and self esteem
- improve the accuracy and presentation of work
- address individual needs We aim to maximise the use and benefits of ICT as one of many resources to enable all pupils to achieve their full potential. If the situation arises, the school will endeavour to provide appropriate resources to suit the specific needs of individual or groups of children.

Roles & responsibilities

Senior Management The overall responsibility for the use of ICT rests with the senior management of a school. The Head, in consultation with staff:

- determines the ways computing should support, enrich and extend the curriculum;
- decides the provision and allocation of resources;
- decides ways in which developments can be assessed, and records maintained;
- ensures that ICT is used in a way to achieve the aims and objectives of the school;
- ensures that there is a computing policy, and identifies a computing co-ordinator.

Computing Coordinator There is a designated computing Co-ordinator to oversee the planning and delivery of computing within the school. The coordinators will be responsible for

- raising standards in computing as a national curriculum subject
- facilitating the use of ICT across the curriculum in collaboration with all subject coordinator
- providing or organising training to keep staff skills and knowledge up to date

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- advising colleagues about effective teaching strategies, managing equipment and purchasing resources
- monitoring the delivery of the computing curriculum and reporting to the Headteacher on the current status of the subject
- identify where ICT should be used in the subject schemes of work.

The Classroom Teacher Even though whole school co-ordination and support is essential to the development of computing capability, it remains the responsibility of each teacher to plan and teach appropriate ICT activities and assist the co-ordinator in the monitoring and recording of pupil progress in computing.

Monitoring

Monitoring computing will enable the coordinator to gain a good overview of the teaching and learning throughout the school. This will assist the school in the self-evaluation process identifying areas of strength as well as those for development.

In monitoring of the quality of computing teaching and learning the coordinator will:

- Analyse children's work
- Observe computing teaching and learning in the classroom
- Hold discussions with teachers
- Analyse assessment data

There is an annual review of this policy by the computing coordinator.

Online Safety

See separate policy.

Review

The Headteacher and staff will review this policy in accordance with the development priorities stated in the School's Development Plan. Any suggested amendments will be presented to the governing body for discussion.

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