



Computing Policy

Introduction

Computing prepares pupils to actively engage 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 Computing to find, explore, analyse, exchange and present information responsibly, creatively and with discrimination.

Our vision is for all teachers and learners in our school to become confident users of technology so that they can develop the skills, knowledge and understanding which enables them to use appropriate Computing resources effectively as powerful tools for teaching and learning.

Curriculum Aims

At Laurel Avenue Community Primary School we seek to develop pupils' understanding and appreciation of Computing and the way it impacts on our lives. We believe it is essential to provide opportunities in all National Curriculum subject areas for pupils to develop their Computing capability and to use it to support their learning. Computing makes education accessible to all, irrespective of learning styles and individual needs. At Laurel Avenue Community Primary School, Computing education is provided in a safe, happy and disciplined environment to stimulate and challenge both pupils and staff.

Our curriculum aims for all pupils:

- ◆ *To encourage pupils to develop positive attitudes to Computing and to understand its importance and relevance to today's world.*
- ◆ *To enable pupils to acquire a broad range of Computing capabilities and to be confident about using a range of hardware and software.*
- ◆ *To enable pupils to develop Computing as a tool for learning and investigation in all subject areas.*
- ◆ *To use Computing to encourage pupils to work co-operatively, taking responsibility collectively.*
- ◆ *To use Computing to develop independent ways of working which encourage pupils to take responsibility for their own actions.*
- ◆ *To provide a balanced range of progressively more difficult tasks which will develop pupils' understanding in Communicating and handling information, Controlling, Modelling and Monitoring.*

- ◆ *To instruct pupils in the use of a variety of Computing equipment.*
- ◆ *To ensure a balance of Computing activities are carried out in a range of contexts.*
- ◆ *To provide opportunities for pupils to explore the use of Technology.*
- ◆ *To set aside time for discussion of pupils' experience of using Computing, both in and out of the classroom.*
- ◆ *To understand and apply the fundamental principles and concepts of Computer Science, including abstraction, logic, algorithms and data representation.*
- ◆ *To analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems.*
- ◆ *To evaluate and apply Information Technology, including new or unfamiliar technologies, analytically to solve problems.*
- ◆ *To be responsible, competent, confident and creative users of information and communication technology.*
- ◆ *Ensuring that all children, young people, parents/carers and foster carers should be equipped with the knowledge and skills to safeguard themselves in the online/digital world.*

Curriculum Development and Organisation

Alongside the National Curriculum, classes follow the Chris Quigley Essentials Curriculum as a basis for their units of study. Chris Quigley's Essentials Curriculum is used to form the medium term plans for Computing.

Each class is allocated a time to use the laptops to accomplish their Computing units. This scheme is integrated to ensure that delivery of Computing is linked to subjects and takes on board the statutory requirements of other National Curriculum subjects. Desktop computers and laptops are also situated in Nursery and Classes 1 - 4 to enable pupils to apply the use of Computing to other subject areas. Individual machines in classrooms support the development of Computing capability by enabling further development of tasks from the Computing session; encourage research, and allow for the creative use of Computing in subjects. This is highlighted in the Computing plan and in subject plans.

Digital projectors are located in every classroom and in the school hall. These are used as a teaching resource across the curriculum.

Teaching and Learning

Teaching and learning will happen weekly within the classroom, based with an emphasis on whole class activities using programming hardware, laptops, desktop computers or iPads. New knowledge or skills will be taught by the teacher to the class and these will be reinforced by the class activities using the computers. There will be lessons where the teacher is repeating a skill in order for the pupils to understand it or

to further their knowledge. Additionally, Computing will be embedded throughout the curriculum in order to enhance and support learning in other subjects.

Early Years and Foundation Stage

Computing is taught in the EYFS as an integral part of one of the seven areas of learning (Understanding the World: Technology). Pupils have free access to various forms of IT throughout the school day.

Key stage 1

Pupils should 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.*

Key stage 2

Pupils should 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.*

Assessment

Computing assessment follows the Chris Quigley's Essentials Curriculum where progress is tracked against Essential Learning Objectives. 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 National Curriculum/Chris Quigley's Essentials Curriculum. 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 will enable summative assessments to take place where children's Computing capability is assessed. The work is assessed against Chris Quigley's Essentials Curriculum expectations at each stage of learning. We aim to build on this process by developing and maintaining electronic portfolios of pupils work.

Entitlement

All of our pupils are entitled to a continuous and progressive Computing curriculum, which meets their individual needs.

The Computing curriculum has been planned using National Curriculum guidance and the Chris Quigley Essentials Curriculum. Teachers will be encouraged to make cross-curricular links especially in the teaching of Computing. However, many aspects of Computer Science will need to be taught discretely.

Special Needs and Inclusion

Pupils with special educational needs have the same Computing entitlement as all other pupils and are offered the same curriculum. However, particular application/tools are used for:

- ◆ *Pupils with learning difficulties need to be motivated to practise basic skills regularly and intensively. They will benefit from the use of programs which practise skills is set in the context of an enjoyable and motivating scenario*
- ◆ *Pupils with physical disabilities and communication difficulties*
- ◆ *Pupils of high ability who may be extended through the use of programs which offer challenge and opportunities for investigation.*

Equal Opportunities

Staff must be aware of, and guard against any bias based on gender, racial or any other stereotypes. All pupils should have equal access to Computing.

Reporting

Information about pupils' progress with regard to Computing is communicated to parents at parents evenings and in their individual annual reports.

Resources

Hardware and software resources are reviewed annually. Teachers report any resource shortfalls or possible extension requirements to the Computing Coordinator and the Shared Technician.

Responsibilities

Class teachers are responsible for:

- ◆ *Differentiating and adapting lessons to cater for all ability levels, ensuring SEN (Special Educational Needs), MAT (More Able and Talented) and EAL (English as an Additional Language) are suitably challenged to meet their needs.*
- ◆ *Incorporating Computing, where appropriate, when planning classroom activities.*
- ◆ *Understanding and utilising the range of software available in school and its use in relation to cross curricular activities.*
- ◆ *Loading and running programs.*
- ◆ *Using computer peripheral devices.*
- ◆ *Recognising and dealing with common faults and mistakes that can arise when using Computing hardware and software.*
- ◆ *Maintaining own knowledge and skills of Computing in accordance with educational developments.*
- ◆ *Ensuring pupils are responsible, respectful and safe when using IT.*
- ◆ *Reporting problems or faults to Computing Co-ordinator, Headteacher and/or Admin Officers who will report this to ICTSS.*

The Computing Coordinator is responsible for:

- ◆ *Assisting Senior Management with coordinating, developing and implementing the schools policy on Computing.*
- ◆ *Promoting and overseeing staff Professional Development activities relating to Computing development.*
- ◆ *Developing strategies for the efficient deployment of existing Computing resources in the school.*
- ◆ *Consultation with the Head Teacher and staff regarding Computing objectives.*

- ◆ *Keeping abreast of and understanding and current technology, developments and trends relating to Computing and its use in Education by attending network meetings.*
- ◆ *Liaising with Durham County staff and other educational establishments on matters relating to Computing.*
- ◆ *Arranging for the upgrading or replacement of hardware and software as appropriate.*
- ◆ *Organising/managing the duties of the technician who visits school fortnightly.*
- ◆ *Completing school action plans and evaluations.*
- ◆ *Updating school policies relating to the teaching of Computing.*

The Computing Co-ordinator in consultation with the Headteacher is responsible for the schools compliance with the Data Protection Act. All staff are responsible for protecting the data they use as part of their job. The Computing Co-ordinator in consultation with the Headteacher is the schools E-safety officer, responsible for the e-safety policy and delivery of Digital Literacy.

Maintenance

Maintenance is carried out by the school's technician who visits the school once a fortnight to give technical support and maintain the network to its optimum capability. In addition, he completes network tasks as designated by the Computing Co-ordinator. Any issues arising from use of Computing equipment/software need to be recorded on the school gateway; 'ICT Faults' on left hand side menu. The Computing Co-ordinator will decide on whether issues can be dealt with using Co-ordinator knowledge or by the technician.

Health and Safety

When working with tools, equipment and materials, in practical activities and in different environments, including those that are unfamiliar, pupils should be taught:

- ◆ *to never look into the projector lens*
- ◆ *the appropriate and safe use of all equipment, especially scanners and photocopiers due to the bright lights.*

Staff Development

To implement this vision effectively, all staff need to be confident in all areas of the Computing curriculum. Staff who have identified areas of development in Computing will be identified and through communication between the Computing Co-ordinator and the Headteacher, relevant course will be located or training brought into/held at school. School has an SLA with ICTSS and County Advisors work with staff on planning and other aspects such as E-Safety and changes in the curriculum.

Training will also be offered on new hardware and software purchased. In addition, the Computing Co-ordinator and/or other staff will be able to support staff members in using various programmes.

The Computing Co-ordinator keeps up to date with the latest technological advancements and curriculum developments by attending conferences, network and school cluster meetings. Information is then fed back to the rest of the school during staff meetings.

School Liaison Transition

The school will regularly use IT to transfer information from school to school. However, it is appreciated that paper based mail still has to be used and is, on occasion, the only acceptable method to use.

Legislation in Computing

When appropriate legislation appertaining to the use of IT changes, the Computing Co-ordinator will discuss this with all members of staff.

Software copyright is a serious issue and is taken seriously by Laurel Avenue Community Primary School. Only software where the correct user site license has been purchased will be loaded onto the network so that staff know it is acceptable to use on all machines.

Legislation covering Computing in schools includes:

The Copyright, Designs and Patents Act 1988

The Computer Misuse act 1990

The Data Protection Act 1998

The Freedom of Information Act 2000

The Protection from Harassment Act 1997

The Malicious Communications Act 1988

Section 127 of the Communications Act 2003

Public Order Act 1986

The Defamation Acts of 1952 and 1996

The school also has policies on:

- ◆ *E-safety*
- ◆ *Data Protection*
- ◆ *Anti – Bullying*
- ◆ *Acceptable use Policies*

Home/School Links

To foster these links, the school has its own website to promote the school and inform parents/carers of termly dates etc. In addition, the Durham Learning Gateway should be used by staff and pupils to enhance learning at both home and school.

The school posts newsletters on the school website.

Signed:

Chair of Learning, Teaching and Achievement Committee

Signed:

Co-ordinator

Reviewed: May 2019

Review Date: May 2022