

Brindle St James'

Church of England

Primary School



Computing Policy

July 2021
Review July 2024

BRINDLE ST JAMES' CE PRIMARY SCHOOL

COMPUTING POLICY

RATIONALE

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology. 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. Computers and Ipads are the most obvious tool used but computing also includes tape recorders, calculators, telephones, cameras, videos and other forms of media.

AIMS

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

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- 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.
- To raise pupil standards of achievement in all subjects and particularly Literacy and Numeracy.
- To provide a comprehensive high quality computing curriculum, which is coherent and progressive

SUBJECT CONTENT

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.

PROCEDURES

Equal Opportunities

We aim to create equality of opportunity for all our children, whatever their gender, abilities or background and give them chance to demonstrate what they know, understand and can do.

Special Educational Needs

The school's policy document for Special Educational Needs explains in full the procedures which are in place for providing for pupils with Special Educational Needs. This is in line with the Code of Practice for all Lancashire Schools. Within this area, tasks are differentiated to ensure access to the National Curriculum and to offer activities which are relevant to the conceptual development of the child.

These pupils may benefit from the use of programs in which skills practice is set in the context of a motivating game or repetitive context depending on their learning need. Pupils with above average ability may use programs which offer challenge and opportunity for investigation in order to extend their learning.

Curriculum Management

The framework for the teaching of computing in our school is outlined in the National Curriculum.

The Programmes of Study are divided into four areas outlined within yearly guidelines as:

1. E Safety
2. Programming and Modelling
3. Network and Internet
4. Software and Digital Devices

Children will be taught units of work from each of these strands within each Key Stage in discrete lessons.

We aim to ensure that all children leave Brindle St James' as digitally literate and therefore teach a variety of programmes and skills, in other subjects, across the curriculum. These include PowerPoint, Excel, Photostory, Movie Maker, Picasa, typing and word processing skills amongst others.

Planning

Planning for computing is a process in which all teachers are involved.

- **Long Term Planning.**

The yearly programme provides an outline of the strand and software and packages that link directly to the unit of work being studied each term for each year group. It is essential that each member of staff is aware of the strands and units of work being covered in their year group.

- **Medium Term Planning.**

The work for a particular strand should be recorded on the medium term plans as a unit of work lasting between 6-8 weeks and refer to the long term plan for computing. The medium term plan, for each strand for each year group list the learning objective, main activities, resources/software, vocabulary/key terms and the outcomes and assessment where appropriate.

- **Short Term Planning (where necessary)**

The short term planning includes the lesson structure which outlines the strand, unit of work, the learning objective, main activities, resources/software, vocabulary/key terms and the outcomes.

Classroom Management

- Hands on experience is the foundation for progress in computing.
- Maximum use should be made of computers supported by work and discussion away from the computer.
- Organisation of the teaching of computing is dependent upon the ability of the children and the availability of computers.
- Normally children will work individually, in pairs or in small groups on the computer.

- The introduction of new knowledge or skills should involve whole class teaching and demonstrations.
- The use of time limits to monitor pace of children's learning is important.

Assessment

We assess children's work in Computing by making informal judgements as we observe them during lessons. On completion of a piece of work, the teacher marks the work and comments as necessary. Prior to the planning and teaching of each unit of work teachers may carry out assessment for learning activities to establish current learning and to enable differentiated planning.

The children's work is viewed as an on-going record of their progress and attainment in this subject. Their confidence and purposeful use of equipment to communicate and handle information in support of their learning should reflect their level of attainment as indicated by the National Curriculum.

The pupils are assessed according to the Lancashire KLIPS (Key Learning Indicators of Performance) for ICT and the specific learning objectives associated with the strand completed. The assessment identifies whether the pupil is working at, towards or above the expected standard within that strand.

Each class has a Computing Assessment Portfolio which records children's attainment within a unit of work. Teachers may plan a separate assessment task, if appropriate, or use the evidence of work in classroom tasks to make a summative assessment at the end of a unit of work. The portfolio should contain evidence of a piece of work above, at and below the expected level for each unit of work taught.

A Comprehensive Inventory Of Computing Hardware

The inventory of hard ware equipment is located in the school office and is updated by the School Administrator as required periodically.

Care Of Equipment

- It is important that a computer is placed in a position that is most accessible without being close to sources of heat, dust or damp.
- Work areas should be kept as clean as possible. Do wipe the monitor screen occasionally.
- The laptops within the mobile suite should be removed and replaced within the classroom by teachers or trained monitors only to prevent damage.
- Take great care with all leads as these tend to be the weakest links on a computer system.
- The digital cameras should be charged in advance of use and cleared of data before being returned.
- Ipads are stored in both KS1 and 2, in a secure unit with a charging port.

