



**Hatherley**  
INFANT SCHOOL

# Computing Policy

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## Introduction

We believe that 'computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, design and technology, and provides insights into both natural and artificial systems.

The core of computing is computer science, in which pupils are taught how digital systems work, and how to put this knowledge to use through programming. This knowledge helps pupils to understand how 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.' (The National Curriculum in England Framework Document (DfE) 2014)

We believe all pupils and other members of the school community have an entitlement to safe Internet access at all times.

'The use of technology has become a significant component of many safeguarding issues. Child sexual exploitation, radicalization, sexual predation; and can be used as a platform that facilitates harm. (Keeping Children Safe in Education 2019') We acknowledge that the increased provision of the Internet in and out of school brings with it the need to ensure that learners are safe. We need to teach pupils how to evaluate Internet information and to take care of their own safety and security.

Online or E-Safety, which encompasses Internet technologies and electronic communications, will educate pupils about the benefits and risks of using technology and provides safeguards and awareness to enable them to control their online experience.

The breadth of issues classified within online safety is considerable and is broadly categorized into three areas of risk:

**Content:** being exposed to illegal, inappropriate or harmful material; for example pornography, fake news, racist or radical and extremist views

**Contact:** being subjected to harmful online interaction with other users; for example commercial advertising as well as adults posing as children or young adults;

**Conduct:** personal online behaviour that increases the likelihood of, or causes harm; for example making, sending and receiving explicit images, or online bullying.

## 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.
- To ensure that all pupils can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems.
- To ensure that all pupils evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- To ensure that all pupils are responsible, competent, confident and creative users of information and communication technology.

(The National Curriculum in England Framework Document (DfE) 2014)

- To promote the teaching of numeracy and literacy within all subjects.
- To protect children from the risk of radicalisation and extremism.
- To ensure compliance with all relevant legislation connected to this policy.
- To work with other schools and the local authority to share good practice in order to improve this policy.

## Role of the Subject Leader

The Subject Leader will:

- lead the development of this policy throughout the school;
- work closely with the Headteacher, curriculum leader, the nominated governor and SENCO;
- be accountable for standards in this subject area;
- monitor standards by;
  - auditing the subject area
  - review of the scheme of work
  - monitoring teachers planning
  - lesson observations
  - scrutinising children's work
  - discussions with pupils
- ensure continuity and progression throughout the school;
- devise a subject action plan;
- provide guidance and support to all staff;
- provide training for all staff on induction and when the need arises regarding;
- attend appropriate and relevant INSET;
- keep up to date with new developments;
- undertake an annual audit and stock take of resources;
- purchase new resources when required and in preparation for the new academic year;
- undertake risk assessments when required;
- review and monitor;

## Role of all School Staff

School personnel will:

- comply with all aspects of this policy
- undertake appropriate training;
- before using any Internet resource in school must accept the terms of the 'Responsible Internet Use' statement;
- not allow others to use their login details;
- report any suspicion or evidence that there has been a breach of security;
- teach pupils the importance of password security;
- be responsible for promoting and supporting safe behaviours with pupils;
- promote e-Safety procedures such as showing pupils how to deal with inappropriate material;
- report any unsuitable website or material to the e-Safety Coordinator/DSL;
- will ensure that the use of Internet derived materials complies with copyright law;
- ensure online/e-Safety is embedded in all aspects of the curriculum and actively promote online safety;
- be aware of all other linked policies;
- maintain high standards of ethics and behaviour within and outside school and not to undermine fundamental British values;
- work in partnership parents and carers keeping them up to date with their child's progress and behaviour at school;
- implement the school's equalities policy and schemes;
- report and deal with all incidents of discrimination;
- attend appropriate training sessions on equality;
- report any concerns they have on any aspect of the school communit

## Early Year Foundation Stage

- To know how to operate simple equipment. (turn on an iPad or LearnPad and use a remote control).
- To show an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones.
- To show skills in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images.
- To know that information can be retrieved from computers
- To complete a simple program on a computer/iPad.
- To use ICT hardware to interact with age-appropriate computer software.

## Key Stage 1

- understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions
- write and test simple programs
- use logical reasoning to predict the behaviour of simple programs
- organise, store, manipulate and retrieve data in a range of digital formats
- communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

[National Curriculum computing \(2014\)](#)

## Teaching and learning

We use a variety of teaching and learning styles in order to develop children's knowledge, skills and understanding.

We follow Purple Mash planning and use the apps accordingly.

We use LearnPads, iPads, beebots, class computers, laptops and the interactive smart boards in the classroom to teach the computing curriculum.

We recognise the fact that we have children of differing ability in all our classes, and we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies:

- setting tasks of increasing difficulty, where not all children complete all tasks;
- grouping children by ability, and setting different tasks for each group;
- providing a range of challenges with different resources;
- having more adults support the work of individual children or small groups.

## Equal opportunities and Inclusion

Teachers are responsible for providing experiences and activities that encourage full and active participation by all children, irrespective of ability, gender, race or religion.

Teachers should set high expectations for every pupil. They should plan stretching work for pupils whose attainment is significantly above the expected standard. They have an even greater obligation to plan lessons for pupils who have low levels of prior attainment or come from disadvantaged backgrounds. Teachers should use appropriate assessment to set targets which are deliberately ambitious. Teachers should take account of their duties under equal opportunities legislation that covers race, disability, sex, religion or belief and other areas.

### **Special Educational Needs and Disabilities (SEND)**

Lessons should be planned to ensure that there are no barriers to every pupil achieving. In many cases, such planning will mean that these pupils will be able to study the full curriculum. The Special Educational Needs and Disability Code of Practice includes advice on approaches to identification of need which can support this. A minority of pupils will need access to specialist equipment and different approaches. Teachers will refer to the SEN and Disability Code of Practice to be clear about what should be done to meet their pupils' needs, in teaching, learning and assessment.

### **English as an additional language (EAL)**

Teachers must also take account of the needs of pupils whose first language is not English. Monitoring of progress should take account of the pupil's age, length of time in this country, previous educational experience and ability in other languages. The ability of pupils for whom English is an additional language to take part in the curriculum may be in advance of their communication skills in English. Teachers should plan teaching opportunities to help pupils develop their English and should aim to provide the support pupils need to take part in computing as in all subjects.

### **Resources**

The computing Subject Leader is responsible for maintaining an adequate supply of resources. BeeBots are stored centrally in the resource cupboard. Laptops are situated in the laptop trolley in the corridor by the photocopier. LearnPads are in Badgers Classroom. Every class has a class iPad and reception have 5 iPads for small group activities. Each classroom has an interactive SMART board and two computers. It is the responsibility of all staff to make sure that items of equipment are returned to their correct places.

### **Assessment for Learning**

Teachers will:

- carry out continuous assessment;
- use short-term assessments matched to the teaching objectives to adjust their planning;
- carry out medium-term assessments to measure progress against key objectives to adjust planning;
- carry out long-term assessment to assess progress against school and national targets;

### **Health and Safety**

At all times, children will be taught how to care for and handle equipment and media safely and with respect. When working with technology children we 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 risk

## Assessment and Reporting

We use assessment to inform and develop our teaching. We give feedback verbally to children and observe and record their activity in the Early Years Foundation Stage. Staff assess children's level of attainment at the end of each academic year and report this to parents in line with the school reporting procedures.

## Monitoring and Evaluation

The Computing Subject Leader is responsible for monitoring the implementation of the Policy as deemed appropriate, by: monitoring planning to ensure it reflects the subject content; keeping informed about current developments in computing; monitoring lessons and supporting colleagues in their teaching; providing a strategic lead and direction in this subject in the school; discussing standards with the Headteacher and SLT.

## Linked Policies

▪ Acceptable Internet Use Agreement	▪ Online Safety Policy
▪ Anti-Bullying	▪ Safeguarding & Child Protection
▪ Behaviour	▪ Staff behaviour and conduct

## Educational resources

Opportunities to teach safeguarding, including online safety, are discussed at paragraph 88-90 of KCSiE 2019. Resources that could support schools and colleges include:

[Teaching online safety in school](#) - DfE guidance outlining how schools can ensure their pupils understand how to stay safe and behave online as part of existing curriculum requirements.

UKCIS has recently published its [Education for a connected world framework](#). Online safety is a whole school and college issue. The framework aims to support the development of the curriculum and is of particular relevance to PSHE education and Computing. It is designed, however, to be usable across the curriculum and beyond and to be central to a whole school or college approach to safeguarding and online safety. It covers early years through to age 18.

The PSHE Association provides guidance to schools on developing their PSHE curriculum – [www.pshe-association.org.uk](http://www.pshe-association.org.uk)

GSB have developed an e-safety programme