



Highfields Independent School and Day Nursery

Computing Policy

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| Last Reviewed: | Nov 2019 | Approved on: | Jan 2020 |
| Committee Responsible: | C&S | | |
| Approved by: | Full Govs | Next Review: | Jan 2022 |

Aims and objectives

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, and provides insights into both natural and artificial systems. 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.

Through teaching computing we equip children to participate in a rapidly-changing world, increasingly transformed by technology. We enable them to find, explore, analyse, exchange and present information. We also focus on developing the skills necessary for children to be able to use information in a discriminating and effective way. Computing skills are a major factor in enabling children to be confident, creative and independent learners and should be used as a tool across the curriculum.

The Internet should be used with safety and understanding and it is critical that we support our learners to be safe online, and understand their vulnerability when accessing the internet.

Related Policies

- E- Safeguarding
- Bullying Policy
- Internet Acceptable Use Policy
- Curriculum Policy
- Health and Relationships Policy (HRE) Policy
- Spiritual, Moral, Social, Cultural (SMSC) Policy
- Anti Bullying Policy
- Safeguarding Policy including Prevent

Internet Safety

Internet access is available to both students and teachers at Highfields School. Pupils are taught how to keep themselves safe, when using the internet. They know how to report internet content that is inappropriate or of concern. E Safety is embedded into the Computing curriculum.

Children should be confident in a no-blame culture when it comes to reporting inappropriate incidents involving the internet or mobile technology: they must be able to do this without fear. **We use the NSPCC materials to teach our children how to access the internet safely.**

The filtering systems used in our school blocks inappropriate content, including extremist content. We also filter out social media, such as Facebook. Searches and web addresses are monitored and the ICT technicians (ARK IT) will alert senior staff, where there are concerns and prevent further access when new sites that are unblocked are found.

Where staff find unblocked inappropriate content, including extremist content, they must report it to a senior member of staff immediately.

Children are not permitted to bring mobile phones into school at any time and under any circumstances.

The Acceptable Use of ICT Policy refers to preventing radicalisation and related extremist content.

The widespread availability and use of social networking applications bring opportunities to understand, engage and communicate with our audiences in new and exciting ways. It is important that we are able to use these technologies and services effectively and flexibly. However, it is also important to ensure that we balance this with our duties to our School Community and partners, our legal responsibilities and our reputation. For example, our use of social networking applications has implications for our duty to safeguard children, young people and vulnerable adults. The policy requirements in this document aim to provide this balance to support innovation and Schools of the 21st Century, whilst providing a framework of good practice. They apply to all members as defined by School representatives.

The aims of computing are to enable children:

- **to develop computing capability in finding, selecting and using information;**
- **to use computing for effective and appropriate communication;**
- **to monitor and control events both real and imaginary;**
- **to apply hardware and software to creative and appropriate uses of information;**
- **to apply their computing skills and knowledge to their learning in other areas;**
- **to use their computing skills to develop their language and communication skills;**
- **explore their attitudes towards computing, its value for themselves, others and society, and their awareness of its advantages and limitations.**
- **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 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 styles

As the aims of computing are to equip children with the skills necessary to use technology to become independent learners, the teaching style that we adopt is as active and practical as possible. We do give children direct instruction on how to use hardware and software, and our aim is to emphasise the teaching of computing for individuals or groups of children to use computers to help them in whatever they are studying, so the children use computing in a cross curricular manner and as a tool to support learning in all subjects. We encourage the children to

explore ways in which the use of computing can improve their work and the best devices to use depending on the context.

We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways, by:

- **setting common tasks which are open-ended and can have a variety of responses;**
- **setting tasks of increasing difficulty (not all children complete all tasks);**
- **ensuring tasks are meaningful and purposeful**
- **grouping children by ability in the room and setting different tasks for each ability group;**
- **providing resources of different complexity that are matched to the ability of the child;**
- **using classroom assistants to support the work of individual children or groups of children.**
- **whole class teaching of skills and use of knowledge**

Monitoring and review

The computing subject coordinator has a responsibility for supporting colleagues in the teaching of computing, for keeping informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school in conjunction with the SLT.

Links with home

Many units provide opportunities for teachers to set worthwhile tasks that can be completed outside formal teaching time. Suitable tasks include:

- finding out more about the topics in the units;
- identifying where ideas they encounter are relevant to everyday life;
- collecting data and information;
- improving the presentation of a piece of work;
- use of technology at home - USB sticks/digital cameras

Health & Safety

When working with tools, equipment and materials, in practical activities and in different environments, including those that are unfamiliar, children should 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 risks.