COMPUTING POLICY

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Introduction

The use of computing is an integral part of the national curriculum and is a key skill for everyday life. Computers, tablets, iPads, programmable robots, digital and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. At Holmwood School, we recognise that pupils are entitled to computing infrastructure and resources, and a structured and progressive approach to the learning of the skills needed to enable them to use it effectively. The purpose of this policy is to state how the school intends to make this provision.

Aims

The school's aims are to:

- Provide a relevant, challenging and enjoyable curriculum for technology and computing for all pupils.
- Meet the requirements of the national curriculum programmes of study for technology and computing. (this will include children working below Key Stage 1)
- Use technology and computing as a tool to enhance learning throughout the curriculum.
- To respond to new developments in technology.
- To equip pupils with the confidence and capability to use technology and computing throughout their later life.
- To enhance learning in other areas of the curriculum using technology and computing.
- To develop the understanding of how to use technology and computing safely and responsibly

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

- Can understand and apply the fundamental principles of computer science, including logic, algorithms, data representation and communication.
- 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 technology, analytically to solve problems.
- Are responsible, competent, confident and creative users of information and communication technology.

Rationale

The school believes that computing:

- Gives pupils immediate access to the rich source of materials.
- Can present information in new ways which help pupils understand access and use it more readily.
- Can motivate and enthuse pupils.
- Can help pupils focus and concentrate.
- Offers potential for effective group working.
- Has the flexibility to meet the individual needs and abilities of each pupil.

Objectives

Children who are at the Early Year levels:
It is important in the foundation stage to give children a broad, play-based experience of computing in a range of contexts, including outdoor play. Computing is not just about computers. Early years, learning environment should feature computing scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities to "paint" on the whiteboard or drive a remote control toy. Outdoor exploration is an important aspect, supported by computing toys. Recording devices can support children to develop their communication skills. This is particularly useful with children who have speech and language difficulties or children who have English as a second language. This programme of study will be followed by children who are assessed at working below Key Stage 1.

The specific objective is:

- Understanding the World: Explore how things work (3-4 year olds)

Children who are at the Key Stage 1 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 programmes.
- Use logical reasoning to predict the behaviour of simple programmes

- Communicate safely and respectfully on line, keeping information private and recognise common uses of information technology beyond school.
- Identify where to get help and support when they have concerns about content or contact on the internet or other online technologies.
- Use technology purposefully to create, organise and store, manipulate and retrieve digital content.
- Recognise common uses of information technology beyond school.

Children who are at Key Stage 2 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 a single algorithm works and to detect and correct errors in algorithm and programs.
- Understand computer networks including the internet; how they can provide multiple services, such as the worldwide web; and the opportunities they can offer for communication and collaboration.
- Describe how internet search engines find and store data; use search engines effectively
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
- Select use and combine a variety of software 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.

Approach

In pursuit of these aims we will adopt strategies which ensure

- Wherever and whenever possible Holmwood School will endeavor to ensure that learning activities make effective use of the most up to date technology.
- That the curriculum reflects the use of computing outside school, that it takes account of pupils developing computing capability; and that it takes into account information resources made available by computing.
- That school governors and management understand the implications of the changing use of computing in the curriculum.
- That teachers know how computing can be used to enhance learning and to support other areas of the curriculum.
- That all staff are capable of using computing resources and applying them effectively.
- That resources are directed and prioritised to ensure a rolling program of upgrade where possible.
- That opportunities to attract external resource are responded to positively.

Process

Teachers use computing to support and enrich learning across the curriculum. We have a computer suite with 12 PCs, a colour laser printer, an interactive whiteboard and projector and home cinema DVD/Video surround sound system. All computers have hard disks on which a suite of core software is installed. Each class is allocated two weekly sessions in the computer suite. One of these sessions is directly used to build on specific computing skills related to the National Curriculum. The other session is used to support English, Maths and other curricular activities.

Each class is equipped with several networked PC's plus an interactive whiteboard and iPads. Teachers are expected to use a variety of strategies to deliver computing lessons according to the needs of the pupils and the aims of the lessons.

All children have equal access to a wide range of suitable programs.

Curriculum Management

The Subject Leader will facilitate the use of Computing in the following ways:
- By updating the policy and scheme of work
- By ordering/updating resources
- By providing INSET so that all staff are confident in how to teach the subject and have sufficient subject knowledge;
- To keep staff abreast of new developments;
- By taking an overview of whole school planning to ensure that opportunities occur for pupils to develop information and communication technology capability and that progression is taking place.
- Refer to Safeguarding and Children and Protecting Professionals in Early Years Setting February 2019
- By supporting staff in developing pupils' capability.
- By attending appropriate courses to update knowledge of current developments.
- Monitoring the curriculum.
- Maintaining records of software licenses and their deployment.

Assessment

The School Assessment Policy describes how assessments are completed in our school. The attainment targets for computing contain descriptors to judge a pupil's performance against. Pupils are therefore assessed at the end of each term and this information is included in the end of year school report. It is also the responsibility of the class teacher to keep an electronic portfolio of work for each pupil.

Monitoring and Review

Monitoring is carried out by Computing Coordinator, in the following ways:

- Formal and random monitoring of all communication systems
- Informal discussion with staff and pupils
- Observation of displays
- Monitoring of class files
- Classroom Lesson Observation
- Learning walks and planning scrutiny

There is an annual review of this policy by the computing coordinator. Due to the accelerated pace of computing developments, the computing coordinator is required to keep fully up-to-date with emerging technology.

Health and Safety/Security

Before being allowed to work in the computer suite all children are made aware of the arrangements if they hear the fire alarm. A copy of the evacuation route and location of fire extinguishers can be found on the wall of the suite. Portable equipment will be checked annually and computers three-yearly under the Electricity at Work Regulation 1989.

Children will also be made aware of the correct way to sit when using the computer and the need to take regular breaks if they are to spend any length of time on computers. Computer room rules are also on display within the computing room for reference along with specific rules for the use of internet and e-mail. The school also has a 'Responsible Use of The Internet Policy' document.

The Health and Safety at Work Act (1 January 1993), European Directive deals with requirements for computer positioning and quality of screen. This directive is followed for all administration staff. Whilst this legislation only applies to people at work we seek to provide conditions for all children which meet these requirements.

UK Council for Child Internet Safety (UKCCIS)

The staff will deliver a curriculum that incorporates the UKCCIS' Education for Connected World document. This includes the framework for:

- Self-Image and identity
- Online relationships
- Online Reputation
- Online Bullying
- Managing online information
- Health, wellbeing and lifestyle
- Privacy and security
- Copyright and ownership

In these, the curriculum will be differentiated to meet the child's needs.

We will also teach the Three Cs of online safety from Keeping Children Safe in Education September 2019:

Keeping Children Safe in Education 2019

The use of technology has become a significant component of many safeguarding issues. Child sexual exploitation; radicalisation; sexual predation: technology often provides the platform that facilitates harm. An effective approach to online safety empowers a school or college to protect and educate the whole school or college community in their use of technology and establishes mechanisms to identify, intervene in, and escalate any incident where appropriate.

The breadth of issues classified within online safety is considerable, but can be categorised 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; and
- **conduct**: personal online behaviour that increases the likelihood of, or causes, harm; for example making, sending and receiving explicit images, or online bullying.