



## **Computing Policy**

**Approved by RA on 26.11.18**

**Subject leader: Michelle Mansbridge and Richard Ford**

### **Introduction**

The use of information and communication technology is an integral part of the national curriculum and is a key skill for everyday life. Computers, tablets, I PADS, 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 quality hardware and software 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 on P Scales)
- 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 ICT and 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 ICT in a range of contexts, including outdoor play. ICT is not just about computers. Early years, learning environment should feature ICT 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 ICT 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 P Scale in computing.

### **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 a sequence of instructions.
- Write and test simple programmes
- Use logical reasoning to predict and compute the behaviour of simple programmes
- Communicate safely and respectfully on line, keeping information private and recognise common uses of information technology beyond school.

## **Children who are at Key stage Two should be taught to:**

- Design and write 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 programmes; 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 programmes.
- Understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they can offer for communication and collaboration.
- Describe how internet search engines find and store data; use search engines effectively

## **Approach**

In pursuit of these aims we will adopt strategies which ensure

1. That learning activities make effective use of the most up to date technology.
2. That the curriculum reflects the use of computing outside school, that it takes account of pupil's developing computing capability; and that it takes into account information resources made available by Computing.
3. That school governors and management understand the implications of the changing use of Computing in the curriculum.
4. That teachers know how Computing can be used to enhance learning.
5. That all staff are capable of using Computing resources and applying them effectively.
6. That parents are encouraged to prioritize the educational benefits of Computing.

7. That resources are directed and prioritized to ensure a rolling program of upgrade where possible.

8. 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, a scanner, 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.
- 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 described how assessment is completed in our school. The Attainment Targets for computing contain descriptors to judge a pupils performance against. We also assess our pupils using P scales. Targets are set for our pupils termly. 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

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(s) 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.