



HIGHLEY COMMUNITY PRIMARY SCHOOL

Computing

Review Date: April 2018

Rationale

The school's policy for Computing is based on the National Curriculum 2014.

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, 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 Highley Primary 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:

We aim to:

- Provide a relevant, challenging and enjoyable curriculum for Computing for all pupils.
- Meet the requirements of the national curriculum programmes of study for computing.
- Use computing as a tool to enhance learning throughout the curriculum.
- Respond to new developments in technology.
- Equip pupils with the confidence and capability to use computing throughout their later life.
- Enhance learning in other areas of the curriculum using computing.
- Develop the understanding of how to use computing safely and responsibly.

The new 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 technologies, analytically to solve problems.
- Are responsible, competent, confident and creative users of information and communication technology.

Teaching and Learning

Highley Primary School follows the 2014 National Curriculum for the teaching of Computing.

Early years

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 environments 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 program a toy. Recording devices can support children to develop their communication skills. This is particular useful with children who have English as an additional language.

The associated Early Learning Goal is:

ELG 15 Technology

Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.

Key Stage 1

By the end of 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 a sequence of instructions.
- Write and test simple programs.
- Use logical reasoning to predict and computing 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.

Key Stage 2

By the end of key stage 2, pupils 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 programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs.

- Use logical reasoning to explain how a simple algorithm works 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.
- Describe how Internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely.
- Select, use and combine a variety of software (including Internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

E-Safety

At Highley Primary School, E-Safety is central to our computing curriculum. We are committed to providing a safe teaching and learning environment for all pupils and staff. Please see the E-Safety policy for more information.

Role of the Subject Leader:

The subject leader will facilitate the development of Computing by:

- managing the implementation of the policy
- updating the policy and scheme of work in collaboration with teaching staff
- ordering/updating/allocating resources in collaboration with teaching staff
- identifying needs and arranging CPD so that all staff are confident in how to teach and assess the subject and have sufficient subject knowledge
- keeping staff abreast of new developments
- taking an overview of whole school planning to ensure that there is continuity between year groups and that progression is taking place
- supporting staff in developing pupils' capability
- attending appropriate courses to update knowledge of current development
- contributing to the School Development Plan on an annual basis
- liaising with feeder schools.

Monitoring and review

Monitoring is carried out by the Computing co-ordinator, in the following ways:

- Informal discussion with staff and pupils
- Observation of displays
- Looking at the work of pupils
- Highlighting curriculum objectives

Equal Opportunities

It is important that children at Highley Primary School do not feel excluded from any part of the computing programme. All pupils will be included in Computing teaching as we take into account children's differences in terms of race, ability, gender, class and their individual needs.

Special Education Needs

The Computing programme aims to provide effective learning opportunities for all pupils and differentiation will be identified in the scheme of work. Each child will be given access to the same learning opportunities, resources and equipment appropriate to their individual needs. More able pupils will be taught in their own class and challenging learning activities will be provided through differentiated group work, open ended questioning, hot seating etc. More able pupils will be indicated to the secondary school to ensure effective progression.

Signed:

(Governor)

Date: April 2018

Next Review Date: April 2019