



Curriculum Statement for Computing at Crazies Hill CE Primary School

Intent

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. – National curriculum 2014

At Crazyes Hill the aims of our Computing curriculum are to enable the children to:

- understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation;
- analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems;
- evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems;
- be responsible, competent, confident, creative and safe users of information and communication technology.

Implementation

Early Years

Pupils are taught to:

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

They may also:

- find out about and use a range of everyday technology. They select appropriate applications that support an identified need.

Key Stage 1

Pupils are 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 programs;
- use logical reasoning to predict the behaviour of simple programs;
- use technology purposefully to create, organise, store, manipulate and retrieve digital content;
- recognise common uses of information technology beyond school;
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Key Stage 2

Pupils are 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 some simple algorithms work 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;
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content;
- select, use and combine a variety of software (including internet services) 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;
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Impact

Through our Computing curriculum, we aim to foster, in our pupils, a positive attitude towards Computing regardless of their attainment.

Each of our school values can be seen through the teaching of computing:

- ❖ The children become more **resilient** as they become more skilful and face challenges. As they solve problems and find new ways of doing things.
- ❖ The children build **relationships** by cascading their skills to children who move into their class from the class below. They also regularly work in peer partnership.
- ❖ **Respect** is cultivated through a strong programme of e-safety.

We also aim to equip pupils with the computing skills and vocabulary that will enable them to be computer literate members of society.

Assessment

Assessments of the children's knowledge and understanding is ongoing throughout the year. Each teacher tracks the children's progress and records this information after each area of learning. Assessment includes observations, discussions and written outcomes. An overview of whether a child is working at age related expectations in Computing is reported to parents/carers in a written annual report.