Computing Curriculum Statement

In our computing curriculum we strive to create opportunities for children to access a high quality computing education which equips them to be able to use computational thinking and creativity to understand and change the world.

Our aims will ensure that all pupils:

- 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 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.

In this way they:

- Will make links with mathematics, science, and design and technology, and provide insights into both natural and artificial systems.
- Will understand that the core of computing is computer science, in which they are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.
- Can build on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content.
- Will 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.

We aim for our children to be confident, competent and discerning users of digital technology which will prepare them for participation in a rapidly changing world; including programming, creating media and utilising online programs and softwares.

The KS1 skills covered will include:

- Understanding what algorithms are
- creating and debugging simple programs
- using logical reasoning to predict the behaviour of simple programs
- using technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognising common uses of information technology beyond school
- using technology safely and respectfully
- keeping personal information private
- identifying where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

The KS2 skills covered will include:

- Designing , writing and debugging programs that accomplish specific goals
- using sequence, selection, and repetition in programs
- using logical reasoning to explain how some simple algorithms work
- understanding 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
- using search technologies effectively
- selecting, using and combining a variety of software (including internet services) on a range of digital devices to design and create a range of programs
- using technology safely, respectfully and responsibly; recognising acceptable/unacceptable behaviour; identifying a range of ways to report concerns about content and contact

These skills will underpin the lessons we deliver.

Opportunities will be taken to positively promote equality and diversity.

See Curriculum Plan for Year Groups
See Long Term Computing Plan