Computing Policy

Policy Number: B14				
Version	Date Issued	Prepared By	Approved By	Comments
1	July 2011	SMT	SMT	Policy Created
3	April 2012	SMT	SMT	Reviewed
3	April 2014	SMT	SMT	Reviewed
4	April 2016	SMT	SMT	Reviewed

Subject Weighting; 1 – 1 ½ hours per week plus through the curriculum.

Aims

The National Curriculum 2017 for Computing has 4 main aims to ensure that all students can:

- 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.
- Are responsible, competent, confident and creative users of information and communication technology.

Learner Attributes:

Curiosity: to explore new technology and old and be able to utilise its attributes.
Keenness: to identify and utilise skill sets already known and a willingness to tackle the unknown.
Creativity: in suggesting different ways to utilise known technology.
Open-mindedness: to accept technology as a part of their everyday life.
Perseverance: in pursuing a problem until a satisfying conclusion is found.
Concern: for making choices of how and when to use technology and to use it appropriately and safely.

Effective Teaching and Learning Styles

We encourage the children to use, both in Computing class as well as supporting other subjects, technology in order to enhance their work. The computer suite is appropriate to the school based on one computer between 2 children. Concepts should be modelled by the teacher then practiced by the students.

Each classroom has a TV screen that can be used to present media in all subjects. There are also laptops available for when students require using them during lessons. Students also bring their own technology to computing lessons.

Computing curriculum planning

The school uses the national scheme of work for computing as the basis of its curriculum planning. Key Stage 1 and 2 use the Hamilton Trust Schemes of work and there are further resources available on Twinkl. The teachers will often use the QCA schemes of work for topics but adjust the lessons according to technology today.

The class teacher is responsible for writing the daily lesson plans for each lesson (short-term plans). These plans list the specific learning objectives and expected outcomes of each lesson. The class teacher saves these plans to google drive.

The topics are planned to build on the students' knowledge year by year. We ensure that there are opportunities for children of all abilities to develop their skills and knowledge in each unit, and we also build progression into the computing scheme of work, so that the children are increasingly challenged as they move up through the school.

The contribution of computing to teaching in other curriculum areas

Computing and technology is used across all subject areas. Opportunities should only be utilised when the technology enhances the subject area.

Computing and inclusion

At our school, we teach computing to all children, whatever their ability and individual needs. Computing forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our computing teaching, we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and those learning English as an additional language, and we take all reasonable steps to achieve this. This may include specialised hardware or specific software to support learning goals.

Assessment for learning

Teachers will assess children's work in computing work by making informal judgements during lessons. On completion of a piece of work, the teacher assesses it, and uses this assessment to plan for future learning. Written or verbal feedback is given to the child to help guide his/her progress and an opportunity to edit the work that they have completed according to the assessment.

Resources

We have sufficient resources for all computing teaching units in the school. We keep these in the Central Storage Room, Computer Suite and in each classroom.

The Foundation Stage

In EYFS the classes cover many different areas of Computing as an integral part of the topic work covered during the year. In EYFS we relate the computing aspects of the children's work to the objectives set out in the Early Learning Goals (ELGs) which underpin the curriculum planning for children aged three to five. Computing is a significant part of the EYFS children's lives including during presentations, activities and many other areas such as presenting songs.

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 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 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 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 unsafe contact.