Computing Policy

Vision

We support all pupils in using a range of technology with purpose and enjoyment. Technology is continuously and rapidly evolving and therefore, we believe, computing is an integral part of preparing children for the wider world. 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 and edit 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.

Aims

The intentions of teaching computing are 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, and creative users of information and communication technology.

Curriculum

The core of our Computing curriculum is the National Curriculum for England which is supported by Purple Mash. The scheme takes a spiral approach which means that themes, knowledge, and skills are revisited throughout, building in the opportunity to deepen knowledge, and understanding and to make connections whilst also building upon knowledge and skills. The curriculum has been specifically sequenced in a logical progression to ensure that new knowledge and skills build on what has been taught before: Year 1 to Year 6. Every year group has a yearly Curriculum Map that outlines the key areas of Computing which will be taught throughout the year.

Teaching and Learning

Within the EYFS, pupils can explore using Beebots, walkie-talkies and basic software on the computers and take photographs using iPads. In 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. In coding lessons, pupils create and debug simple programs and use logical reasoning to predict the behaviour of simple programs. Pupils are taught to recognise common uses of information technology beyond school and how to use technology safely and respectfully. Pupils in Key Stage 2 are taught to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems, use logical reasoning to explain how

some simple algorithms work and to detect and to understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for global communication and collaboration.

Assessment

Assessment for learning is continuous throughout the planning, teaching, and learning cycle. Teachers assess learning through observations of children, and using differentiated, open-ended questions that require children to explain their understanding.

Monitoring and review

We monitor teaching and learning in the same way as we do all the other subjects that we teach in the school. The Governors' Curriculum and Standards Committee has the responsibility of monitoring the success of the teaching in languages.

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