Ambition, Belief, Communication

IT POLICY

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October
2024

Intent

Our IT curriculum aims to provide every child with the opportunity to learn and progress in every lesson. Computing in the workplace is becoming moreand more popular and necessary making computing a vital part of children's education. The key principles behind the design of our computing curriculum arefor our children to:

o Be knowledgeable about how computers and networks work;

o Use computing safely and know what to do in case something upsets them or doesn't seem right;

o Gain and enhance skills and knowledge as they transition through school;

o Be confident, independent, resilient and be keen to learn;

o Be well prepared for the challenges they face in computing when leaving for secondary school.

Ultimately, we want the children at Bradley primary school to be the best they can be when using IT, leave school with an excellent understanding of how computers work, and are used in the workplace.

Implementation

Our Computing curriculum is centred on children knowing how to access technology around them, but fundamentally, how to stay safe at all times, both online and off-line. Children have the right to be both physically and mentally healthy. Implementation of our Computing curriculum allows children to build up a broad and balanced knowledgebase through experiencing computing in two phases. First, is through the teaching of discrete computing skills where children learn how to investigate and program devices, use technology to communicate information in the form of words and graphics, use the Internet safely and effectively, handle data, store, and sort and retrieve information. Secondly, the children are provided with opportunities to use computing in other subject areas. They are encouraged to think about how computing can support their learning across the curriculum by using and applying the skills that they have learnt. Our school ensures consistency and progression through the provision of a well-sequenced curriculum. A variety of resources are used, including apps and software, for example, Microsoft programs, Scratch, Alex, Crumbles, Microbits, BeeBots and Kodu.

Weensure that children develop depth in their knowledge and skills throughout each computing unit. We have a variety of hardware resources to support learning, both in computing lessons and across the curriculum. The children have access toa range of computing devices to support their learning such as iPads, laptops, Bee-Bots, Crumbles, Microbits, M-Bots and a computing suite. Within our school, there is an interactive board in each classroom and wireless internet connection across the entireschool. As a result of investing in a significant amount of devices, children's learning in the Computing curriculum is effectively provided for, as well asopportunities to enhance the development of skills, and access to a wide range of information, across the primary curriculum. Curriculum overviews are provided for teachers; planned units are carefully sequenced and provide exciting, realistic, engaging and creative learning experiences which promote life skills. Evidence of learning is stored electronically and physically in the form or worksheets and photographic evidence.

EYFS

Children in EYFS have a computing lesson once a week where they learn how to use a mouse to drag and drop, select, and open and close programs. They also learn how to use a keyboard to type and log in. This gives them the basic knowledge needed for logging into a computer, shutting down, and opening and closing programs ready for moving into key stage 1.

KS1 & KS2

The topics studied in Key Stage 1 & 2 are planned to build upon prior learning. We offer opportunities to children of all abilities to develop their skills and knowledge in each unit. Progression is built into the sequence of learning so that the children are increasingly challenged as they move up through the school. Computing is taught in Key Stages 1 and 2 through: High quality computing lessons that engage and inspire children in the three areas of Computer Science, Information Technology and Digital Literacy.

Computer Science

Computer Science is the foundation. It is the core of Computing where our pupils are taught how digital systems work and how to use this knowledge to program. They learn the principles of computation and information. Pupils are taught the principles of:

- How computer systems work;
- Finding and fixing mistakes in a program (de-bugging);
- Using logical thinking to solve problems;
- Sequencing instructions (algorithms) to make something happen (programming).

Information Technology

Information Technology is the application. Children use their Computer Science knowledge to create programs, systems and content. Pupils have the knowledge to:

- Create programs;
- Create content;
- Store and manipulate content;
- Retrieve digital content (searching).

Digital Literacy

Digital Literacy are the implications. Children become digitally literate to use and develop their ideas through Information Technology. This will enable them to become active members of the future workforce. Pupils will become digitally literate so that they are:

- Prepared for the future workplace;
- Responsible and safe users;
- Competent, confident and evaluative.

As part of our Curriculum Overview, each half-term has a distinct focus on either: Computer Science or Information Technology. Digital Literacy is taught continually throughout the terms. There are further opportunities for children to develop their Digital Literacy skills throughout the year, for example, during class based lessons, clubs and special days throughout the year, for example, Safer Internet Day. Cross-curricular links are appropriately made in other subjects, where Computing skills are applied. Children are taught how to use technology safely by following the correct staying safe procedures and through discussions during computing lessons and PHSE lessons.

Impact

Knowing more, remembering more and being able to do more are indicators of progress. Children should be prepared for their next stage of learning. Impact is measured by the child's progress against their expected outcomes and their ability to meet the key aims of the National Curriculum for Computing. Pupils will be able to:

- Design, write and de-bug programmes 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 worldwide 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 and unacceptable behaviour; identify a range of ways to report concerns about content and contact;
- Enjoy using technology to develop their learning and ideas.
- Apply staying safe rules to ensure they use technology safely and respectfully at all times.
- Become more independent and key life skills such as problem-solving, logical thinking and self-evaluation.

After the implementation of this robust Computing curriculum, children at Bradley Primary School will have developed the knowledge, skills and understanding to help them access and use a range of technology in a safe and creative way. Children's skills will have progressed to enable them to not only have met the requirements of the National Curriculum but to also enjoy using technology to develop their own ideas. From this, they will become more independent and key life skills such as problem-solving, logical thinking and self-evaluation will become second nature.

Continuing Professional Development (CPD)

The Computing Lead continues to attend Subject Leader Network Meetings in order to ensure that the Computing Lead and wider staff are aware of the latest information and curriculum developments in Computing. Online training courses have also been completed regarding the 'Teach Computing' scheme of work that is now used at Bradley primary school.