



Subject Leader Position Statement

Subject - Computing

Date – February 2023

Intent

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

- Be knowledgeable about how computers and networks work.
- Use computing safely and know what to do in case something upsets them or doesn't seem right.
- Gain and enhance skills and knowledge as they transition through school.
- Be confident, independent, resilient and be keen to learn.
- 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 computing and leave school with an excellent understanding of how computers work and are used in the workplace.

Rationale

Computing is concerned with how computers and computer systems work, and how they are designed and programmed. Children studying computing at Bradley primary school will gain an understanding of computational systems of all kinds, whether or not they include computers. Computational thinking provides insights into many areas of the curriculum, and influences work at the cutting edge of a wide range of disciplines. This allows us to solve problems, design systems, and understand the power and limits of human and machine intelligence. It is a skill that empowers, and one that all children should be aware of and develop competence in. Children who can think computationally are better able to conceptualise, understand and use computer-based technology, and so are better prepared for today's world and the future.

The focus of the computing subject moves towards programming and other aspects of computer science. Programming has been part of the primary national curriculum from the start, as 'control' or 'sequencing instructions', although this has too often been overlooked or treated superficially. There is more to computer science than programming, though. It incorporates techniques and methods for solving problems and advancing knowledge, and includes a distinct way of thinking and working that sets it apart from other disciplines. Every core principle can be taught or illustrated without relying on the use of a specific technology.

Implementation

Our Computing curriculum is centred on children knowing how to access technology around them, but fundamentally, how to keep 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 knowledge base 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, BeeBots and Kodu. We ensure 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 to a range of computing devices to support their learning such as ipads, laptops, Bee-Bots, M-Bots and a computing suite. Within our school, there is an interactive whiteboard in each classroom and wireless internet connection across the entire school. As a result of investing in a significant amount of devices, children's learning in the Computing curriculum is effectively provided for, as well as opportunities 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 of worksheets and photographic evidence.

Support Available

CPD will be offered to staff where needed, this may be a course to attend, an online CPD programme to take part in or the subject leader delivering training to the rest of the staff.

Assessment

Computing assessment is based on the computing teachers' assessment of children. At the end of a unit, the computing teacher will identify if a child is working at the expected standard for the objectives covered, above or below. This is recorded for future reference, planning and learning and passed on to the head teacher.