Little Sutton C of E Primary School
Computing Statement

Intent

At Little Sutton Church of England Primary School, we aim to prepare our pupils for their future by giving them the opportunities to gain knowledge and skills that will equip them for an everchanging digital world. Knowledge and understanding of computing is of increasing importance for children's future prospects, both at home and for employment. Our Children must be exposed to a thorough and robust Computing curriculum in order for them to participate effectively and safely in the digital world beyond our gates.

Our Computing curriculum focuses on a progression of skills in digital literacy, computer science, information technology and online safety to ensure that children become competent in safely using, as well as understanding, technology. These strands are revisited repeatedly through a range of themes during children's time in school to ensure the learning is embedded and skills are successfully developed. Through the teaching of Computing we aim to develop the processes of computer systems, technologies, hardware and variety of software. We also aim to provide the children with opportunities to work through the essential elements and concepts of computer science, programming and data handling as well as building on the children's research, communication and presentation skills. Our intention is that Computing also supports children's creativity and cross curricular learning to engage children and enrich their experiences in school.

The National Curriculum for computing aims to 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.

Implementation

At Little Sutton Church of England School, we believe that a clear and effective scheme of work that provides coverage in line with the National Curriculum is essential to meet the requirements of our children in order for them to thrive. Teaching and learning facilitates progression across all key stages within the strands of digital literacy, information technology and computer science.

In Key Stage One, one of the ways we are teaching the pupils about the language and concepts associated with computer programming is by using Bee-Bots and Pro-bots, which are simple programmable robots.

Children in Key Stage Two have access to the hardware (computers, tablets, and programmable equipment) and software that they need to develop knowledge and skills of digital systems and their applications. Computing is implemented across all aspects of our school curriculum, with one example being the use of Times Tables Rockstars during Mathematics lessons.
The importance of online safety and celebrations of the computing curriculum are shown through displays within the learning environment. Assemblies about online safety are led by the computing lead and Junior Safety Officers throughout the year. Parents are informed when issues relating to online safety arise and further information/support is provided if required. Every child actively participates in a range of activities linked to being safe with technology during our Little Sutton E-Safety Day. Computing clubs provide further opportunities for pupils to develop their interests, knowledge and skills in computing.

Impact

Little Sutton Church of England Primary School takes immense pride in the teaching and learning of computing and strive to ensure that every child can become a confident user of technology, while being able to use it to accomplish a wide variety of goals, both at home and in school.

Children will have a secure and comprehensive knowledge of the implications of technology and digital systems by the time they leave our school. This is important in a society where technologies and trends are rapidly evolving. They will be able to apply the British values of democracy, tolerance, mutual respect, rule of law and liberty when using digital systems, which will hold them in great stead in their future endeavours.

Computing in the Early Years

At Little Sutton Church of England Primary School, our reception pupils experience a wide range of technologies throughout their play including; iPads, computers, cameras, Bee-Bots and interactive whiteboards. They use these forms of technologies to access age appropriate software, to provide opportunities for mark making as well as supporting their imaginative play, often re-enacting real life experiences both inside and outside of the classroom. Children thrive on the ability to incorporate technology into their learning and through careful planning of their continuous provision, our Early Years team are able to provide a number of devices for children to use competently and independently, to support child led learning. In addition to this, technology is a fantastic tool to enable children to build confidence, control and improve language development through specific online programs. Recording devices can support children to develop their communication and language skills further as well as building simple IT skills. This is particularly useful with children who have English as an additional language or children who struggle to communicate effectively.

Computing in Key Stage One

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.

Computing in Key Stage Two

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 contact.

Equal Opportunities and Inclusion

Through the school's REACH acronym, we are committed to providing a teaching environment which ensures all children are provided with the same learning opportunities regardless of social class, gender, culture, race, special educational need or disability. Teachers use a range of strategies to ensure inclusion and also to maintain a positive ethos where children demonstrate positive attitudes towards others. Support for specific individuals is well considered and planned for, with consideration given to how greater depth and further challenge can be provided and demonstrated by children who require further challenge. All pupils are entitled to access the computing curriculum at a level appropriate to their needs.

To ensure inclusion, teachers use a range of strategies in line with the school's inclusion policy. Independent tasks, as well as teaching, are also well-adapted to ensure full accessibility and reasonable adjustments are made when needed, as well as to provide appropriate challenge to different group of learners. The school makes full use of additional adults who are deployed effectively to ensure that identified children are able to make progress in each curriculum area, according to their full potential.

Assessment

Assessment for learning is continuous throughout the planning, teaching and learning cycle.

Assessment is supported by use of the following strategies:

- observing children at work, individually, in pairs, in a group and in class during whole class;
- teaching using differentiated, open-ended questions that require children to explain and unpick their understanding of ideas and techniques;
- providing effective feedback in line with our school's marking and feedback policy;
- book moderation and learning walks, either whole school or key stage/year group specific, to evaluate the range and balance of work and to ensure that tasks meet the needs of different learners;
- data drops and pupil progress meetings take place at the end of each school term, and continuous assessment is carried out by class teachers and subject leaders throughout the school year.

British Values and Christian Distinctiveness

As a Church of England School, mutual respect is at the heart of our values. Children learn that their behaviours have an effect on their own rights and those of others. All members of the school community treat each other with respect and follow our three school rules: 'Be kind, be safe, be respectful'. As a friendly and welcoming primary school in Little Sutton, our children learn about British values like respect, tolerance, democracy, liberty and law. We appreciate and celebrate diversity through the teaching of stories, values and celebrations from a variety of faiths and cultures.