St. Cuthbert's R.C Primary School - Computing

Intent

At St, Cuthbert's, we believe that Computing is central to the education of all children. We strive to give pupils the opportunity to apply and develop their technological understanding and skills across our wide-ranging curriculum. Pupils are encouraged to develop a secure and safe approach to Computing and the use of ICT. We aim to do this by supplying children with skills in the three main areas of the computing curriculum: computer science (programming and understanding how digital systems work), information technology (using computer systems to store, retrieve and send information) and digital literacy (evaluating digital content and using technology safely and respectfully). Additionally, we want to inspire children to use computational thinking and creativity to understand and be part of the digital world. Objectives covered within each area of Computing, will provide children of St. Cuthbert's with an opportunity to apply and develop what they have learnt across the broad curriculum, preparing them for Secondary School.

Implementation

At St. Cuthbert's, our curriculum for Computing is adapted from the 'Teach Computing' Curriculum and covers all aspects of the National Curriculum.
The curriculum aims to equip young people with the knowledge, skills and understanding they need to thrive in the digital world of today and the future. The curriculum can be broken down into 3 strands: computer science, information technology and digital literacy, with the aims of the curriculum reflecting this distinction.

The national curriculum for computing aims to ensure all pupils:
- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation (Computer science)
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems (Computer science)
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems (Information technology)
- are responsible, competent, confident and creative users of information and communication technology. (Digital literacy)

Children will complete a variety of projects to develop their computing skills through the use of different technology and software. Progression across all units is

embedded within the mixed year groups and teaching staff will ensure knowledge becomes embedded and built upon. Furthermore, ensuring that pupils are safe when they are online is paramount to our school and is addressed within our computing curriculum. Children have a right to enjoy online activity, to access safe online spaces and to benefit from all the opportunities that a connected world can bring them, appropriate to their age and stage.

At St.Cuthbert's, key stage 1 and 2 children are provided with Google Education Suite accounts and work can be accessed in school and remotely. Evidence of work is stored electronically via the Google drive and children access Google Classroom to complete work in a range of subjects. Additional work is collated within each class' floor book at the end of each lesson.

Impact

Children at St. Cuthbert's will be confident users of technology; they will be 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 technology and digital systems. They will be digitally literate and will possess skills and knowledge to use technology effectively and for their own benefit, but more importantly, safely.

As children become more confident in their abilities in Computing, they will become more independent and will develop key life skills such as problem-solving, logical thinking and self-evaluation. This will support children in the transition to Secondary School and the wider world.

An example of skills progression with our Computing Curriculum

National Curriculum		Year 3	Year 4	Year 5	Year 6
Programming	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems	• Create a sequence of commands using a **block language** to produce a given outcome • Debug errors to accomplish specific goal	• Plan a program using a **block language** which includes appropriate loops to produce a given outcome • Debug errors in increasingly complex programs to accomplish specific goal	• Plan a program which includes selection to produce a given outcome • Debug errors in increasingly complex programs to accomplish specific goal	• Plan a program which includes variables to produce a given outcome • Debug errors in increasingly complex programs to accomplish specific goal