Computing at Bishop David Sheppard CE (A) Primary School

"We live in a digital age. Technology has transformed how we do things, from communication with friends and family to learning about the world around us. The pupils we teach do not know a life without it. The opportunities it offers us to improve education are truly exciting. The question is no longer whether technology should have a place in the classroom, but how technology can most effectively be integrated in ways which achieve improved outcomes for young people."

Sir Kevan Collins

Chief Executive – Education Endowment Fund

Intent

At Bishop David Sheppard, we aim to provide children with a strong understanding of the world through a high-quality computing education. Through the scheme Purple Mash, we create pupils that are computational thinkers and in an increasingly technological world, we tailor our curriculum to provide pupils with the knowledge and confidence to use ICT and computing skills in everyday life.

Through the subject of computing, children will be able to develop a range of fundamental skills and a secure knowledge of E-safety. We teach internet safety to link in with localised issues and in line with the Education for a Connected World Framework. Using these skills, children will learn how to stay safe using computing in modern day society. These valuable skills will equip children for their future in our advancing technological world. Computing has deep links with mathematics, science, PSHE and design and technology and is linked across the curriculum as well as being discreetly taught.

Implementation

In Key Stage 1 and 2, the children will develop a wide range of computing skills including programming, decoding, touch typing and using spreadsheets. Taught skills in Key Stage 1 will be revisited at greater depth throughout Key Stage 2. Our progression maps show how these skills will be built upon and termly assessments will monitor progress and any gaps in learning that will need to be revisited at a later date.

Computing units are taught discreetly throughout computing sessions and include how to save work, print work and how to access search engines safely. Computing is used effectively in other subjects to supplement and enhance teaching and learning; for example, using apps

for maths (TTRS), using search engines, Google Maps in geography and data loggers in science. We also supplement our computer safety unit by using the Educated for a Connected World Framework and teaching this throughout PSHE sessions across the school year. We use our identified localised issues; gaming, social media, and cyber bullying as a key focus for our E-safety teaching.

"The way in which technology is integrated into teaching and learning can be important. Two broad categories are referred to: integrated teaching, where technology is embedded within traditional classroom instruction and supplemental uses of technology (i.e., additional practice)."
Sung and Colleagues (2015)

The computing curriculum is broken down into 3 key strands:
Computer Science- Understanding algorithms and programming.
Information Technology- To use technology purposefully and effectively.
Digital Literacy- Understanding the use of technology around us and how to communicate by using it safely which links to E-safety.

Impact
After the implementation of this tailored computing curriculum, children at Bishop David Sheppard will become digitally literate and are able to join the rest of the world on its digital platform. As children become more confident in their abilities in computing, they will become more independent and key life skills such as problem-solving, logical thinking and self-evaluation will continue to evolve. Much of the subject-specific knowledge developed in our computing lessons equip pupils with experiences which will benefit them in secondary school, further education and future workplaces. Research tells us that using technology to support retrieval practise and self-quizzing can increase the retention of key skills. This is evidenced by the use of TTRS, Learning Village and IDL.

Through computing sessions, they will be equipped with the skills and knowledge to use technology effectively and safely. Children will understand the need to use a wide range of technology and its importance in our modern-day world. One of the biggest impacts we want for our children, is that they understand the consequences of using the internet and that they are aware of how to keep themselves safe whilst online.

Computing will also be used for interventions or to further support and enhance learning in other areas of the curriculum. Regular assessments, pupil voice and samples of work will help to monitor children's progress and assist with future planning to ensure all children reach their full potential.

To ensure that everyone can access their education, we use Google Classroom in order to facilitate learning for children when they are unable to attend school. This has predominately been used due to Covid but can also be implemented for a range of needs. By using Google Classroom, children are able to access a consistent level of education remotely. We were also able to provide laptops to children when at home to support their remote education. Laptops are also loaned to children to access online homework.

References

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