Curriculum Vision Statement: Computing

Intent:

At St Cuthbert's Catholic Primary School, we deliver a high-quality computing curriculum that has computational thinking and creativity at it's heart. We believe that children should be equipped to harness the power of technology and understand it's advantages and disadvantages alike. We aim through our curriculum to support children to become responsible, conscientious digital citizens, that can navigate the online world safely and confidently.

We aim to simulate children's interests in computer sciences and understand how it is embedded into the world we live in through connections with wider subject areas. Our Computing curriculum provides pupils with a range of opportunities to create, explore and develop content for themselves and others through 'unplugged' activities, as well as offering pupils the chance to access a variety of devices, ensuring each child can experience a range of technology, preparing them for the next stage of education.

We intend to inspire pupils to become confident and safe digital citizens by:

- Developing an interest in computer science, and understand its importance in today's world.
- Understanding the importance of staying safe and communicating positively and effectively online.
- Learning about the ownership of ideas and recognise the value of information held on IT systems e.g. recognising how much work has gone into producing a computer file, and how easily careless access can destroy it.
- Developing knowledge and understanding of important ideas, processes and skills and relate these to everyday experiences
- Enabling children to navigate the internet safely and understand how and when to report something that makes them feel uncomfortable.
- Enabling children to express their creativity through the use of IT.
- To equip pupils with the confidence and capability to use IT throughout their education, home and further work life.
- Fostering enjoyment, curiosity and creativity through the use of IT and stimulate interest in new technologies.

Implementation:

At St Cuthbert's Catholic Primary School, the teaching and learning of Computing focuses on enabling children to access a range of experiences to equip them to become excellent digital learners and citizens.

We have used the best research to create a well sequenced and progressive curriculum map containing the key concepts children need to be procedurally fluent in, to work, think and create like computing professionals.

The key concepts in Computing we plan a progression for are as follows:

- *Problem solving and logical thinking*
- *Creative Content*
- *Digital literacy (Including E-Safety)*

At St Cuthbert's Catholic Primary School, we enable children to become confident digital citizens that are able to navigate the online world and are equipped with the skills to flourish in a digital society.

We develop children's computational thinking, understanding and skills through a range of unplugged and plugged teaching styles, access to a range of digital devices and discrete computing lessons that enable children to build on their knowledge and skills.

We teach children decomposition, pattern recognition, abstraction, adaptation and the language of algorithms, all of which link to wider curriculum and key life skills.

At St Cuthbert's Catholic Primary School, teachers are responsible for including the key elements of Computing into their topics, where appropriate.

Teaching Styles

Computing is taught through a cross-curricular thematic approach in Key Stage 1 and we link Computing to as many subjects ensuring no tenuous link is made. In Key Stage 2 Computing is taught as a discrete subject.

At St Cuthbert's Catholic Primary School, Computing contributes significantly to the teaching of English in our school by actively promoting the skills of reading, writing, speaking and listening.

By the end of year 6, children can apply computational skills to wider subjects, such as Mathematics and STEM project and can use computational vocabulary to explain this.
At St Cuthbert's, children are well prepared and equipped with the necessary knowledge and skills for the next stage of their education and wider world expectations. They are equipped with the necessary knowledge of the wider uses of the internet to make informed choices and become responsible users of internet systems.

Reading across the curriculum

In order to develop children's reading skills, our teachers plan opportunities for children to independently read age-appropriate texts that link to the Computing topic being studied. We have invested in supporting our Computing topics with new books for a range of topics studied. Studies show that if children encounter new knowledge within a narrative, they are more likely to retain that knowledge. Therefore, when possible, Computing units of work will be delivered alongside a narrative or in context.

Writing across the curriculum

We develop skills of research and note taking and to present findings in a variety of ways such as in written, oral or pictorial form as well as using ICT. As well as using computing to support wider curriculum writing in a range of genres, we are also developing the children's skills of digital literacy, explanation and typing skills. This helps to prepare children for studying discrete subjects and using technology to support their learning once they move up to KS3. As with writing in all subjects at St Cuthbert's, children have access to a large bank of vocabulary; planning and writing frames and scaffolds and writing is taught using a range of strategies such as shared, modelled, guided and independent work.

Impact:

At St Cuthbert's Catholic Primary School, we use both formative and summative assessment information in every Computing lesson. Staff use this information to inform their planning and to plan interventions. This helps us provide the best possible support for all of our pupils, including the more able.

Our staff use Computing formative assessment to systematically assess what the children know as the topic progresses and inform their future planning. Assessment information is collected at the end of the academic year. In addition to this, a comprehensive monitoring cycle is developed at the beginning of each academic year. This identifies when monitoring is undertaken.

Monitoring in Computing includes: book scrutinies, environment and learning walks and pupil voice. All of this information is gathered and reviewed. It is used to inform further curriculum developments and provision is adapted accordingly. We believe that if children have become knowledgeable digital citizen, then they will be able to articulate their understanding with confidence. The work produced by our children and the discussions they have, should demonstrate that they are equipped with the computational skills and knowledge that will enable them to be ready for the secondary curriculum and for life as an adult

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