St John's
C of E Primary School

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Statement of Intent and Implementation

Intent

Our curriculum intent for Computing reflects the purpose and aims of the national curriculum by helping our pupils to use **computational thinking and creativity to understand and change the world**. Computing has deep links with Mathematics, Science, and Design and Technology, and provides insights into both natural and artificial systems.

The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, **pupils are equipped to use information technology to create programs, systems and a range of content.** Computing also ensures that pupils **become digitally literate** – able to use, and express themselves and develop their ideas through, information and communication technology – at a level **suitable for the future workplace and as active participants in a digital world.**The curriculum is sequenced in long and medium term plans to help pupils build cumulative knowledge towards agreed milestones or expected standards.

"A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world...core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content." National Curriculum

Implementation

Our computing curriculum is designed to equip children with the **skills and understanding to live in a technological world**, which includes being able to use a variety of computer software and coding programs. There is an emphasis on the importance of **online safety** for all year groups. To ensure high standards of teaching and learning in computing, we implement a curriculum that is progressive throughout the whole school. Our implementation of the Computing curriculum is in line with 2014 Primary National Curriculum requirements for KS1 and KS2 and the Foundation Stage Curriculum in England. This provides a broad framework and outlines the knowledge and skills taught in each key stage.

Computing teaching will deliver these requirements through our half-termly units. Our Computing progression model is broken down into four strands that make up the computing curriculum. These are:

- Computing Systems and Networks
- Creating Media
- Programming
- Data and Information

The Teach Computing Curriculum is structured in units. For these units to be coherent, the lessons within a unit must be taught in order. However, across a year group, the units themselves do not need to be taught in order, with the exception of 'Programming' units, where concepts and skills rely on prior learning and experiences. Teachers should ensure that ICT and computing capability is also achieved through core and foundation subjects and where appropriate and necessary ICT and computing should be incorporated into work for all subjects using our wide range of interactive ICT resources.

The Teach Computing Curriculum uses the National Centre for Computing Education's computing taxonomy to ensure comprehensive coverage of the subject. This has been developed through a thorough review of the KS1-4 computing programme of study, and the GCSE and A level computer science specifications across all awarding bodies. All learning outcomes can be described through a high-level taxonomy of ten strands, ordered alphabetically.

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Computing teaching is practical and engaging and a variety of teaching approaches and activities are provided based on teacher judgement and pupil ability. Teachers and pupils are also aware of the importance of health and safety and pupils are always supervised when using technology and accessing the internet.

We provide a variety of opportunities for computing learning inside and outside the classroom. Computing and safeguarding go hand in hand and we provide a huge focus on internet safety inside and outside of the classroom. In Addition to all pupils studying an online safety unit through their computing lessons, every year we also take part in **National Safer Internet Day in February**. The Computing and E-Safety Lead, alongside class teachers will plan additional internet safety lessons and activities to take part in following a specific yearly theme. Internet Safety assemblies are also held and often led by 'Digital Leaders'.

Impact

The implementation of this curriculum ensures that **when children leave St John's, they are competent and safe users of ICT** with an understanding of how technology works. Our Computing curriculum equips children with the skills to become digital-literate. **Children will learn expert vocabulary and should be able to recall this in everyday life.**They will have developed skills to express themselves and be creative in using digital media and be **equipped to apply their skills in Computing to different challenges going forward.** Our pupils will be equipped, not only with the skills and knowledge to use technology effectively and for their own benefit, but more importantly – safely. The biggest impact we want on our children is that they understand the consequences of using the internet and that they are also aware of how to keep themselves safe online.