St John's
C of E Primary School

Computing at St John's

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 three strands that make up the computing curriculum. These are **Computer Science, Information Technology and Digital Literacy.** Computer Science underlines the knowledge and skills relating to programming, **coding, algorithms** and computational thinking. Information Technology underlines the knowledge and skills relating to **communication, multimedia and data representation and handling.** Digital Literacy underlines the knowledge and skills relating to **online safety and technology uses** all of which are covered weather combined or discreetly.
We use and follow the Purple Mash scheme of work from Year 1-6, ensuring consistency and progression throughout the school, and 'Mini Mash' in EYFS.
The Purple Mash scheme of work enables clear coverage of the computing curriculum whilst also providing support and CPD for less confident teachers to deliver lessons.
Lessons are broken down into units that are **practical and engaging and allow computing lessons to be hands-on**. Units cover a broad range of computing components such as **coding, spreadsheets, Internet and Email, Databases, Communication networks, touch typing, animation and online safety**.

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When teaching computing, teachers can follow the children's interests to ensure their learning is engaging, broad and balanced. 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.**
Through our Purple Mash subscription, our teachers can deliver thematic, cross curricular lessons that also follow children's interests and provide flexibility. Purple Mash has an online portal of age-appropriate software, games and activities as well as topic materials and materials to support children's learning in other subject areas for all key stages.
Computing lessons will also use the Purple Mash software to 'make music' using the 2Sequence program, design and make using the 2Animate software and make links with maths through spreadsheets using 2Calculate.

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.

Our pupils are **fully encouraged to engage with ICT and technology outside of school.** Each teacher and pupil at St John's has their own unique Purple Mash login and password. Computing work can be stored and saved using pupil log in details and homework or '2do's' can also be set for pupils to access and complete tasks at home that link with their current class learning.

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. Additional 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 key 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.