



Computing

Computing at St Paul's equips pupils to use computational thinking, digital literacy and internet safety, whilst providing a creative outlet and understanding of the changing world, helping them to flourish in their journey to the fullness of life.



Our Vision for Computing

Inspired by God's love for us, we illuminate the goodness in others, we care for and protect his children and reach out to help others flourish in their journey to the fullness of life. At St Paul's we aim to deliver a high-quality computing educational journey, equipping all our pupils to use computational thinking, digital literacy, internet safety and creativity to understand the ever-changing and developing world. Enabling them all to flourish in their journey to the fullness of life. We aim to offer a broad and exciting computing curriculum; one that caters to all our children's needs. We recognise that computing has deep links with other subjects including mathematics, science, and design technology, and we aim to utilise this cross-curricular nature to embed pupils' learning across a range of subjects using computing as a vehicle. Computational thinking forms a large part of the Computing curriculum, which means being able to solve problems, applying logic to given tasks and, in particular, programming. Our intention is for all pupils to be equipped to use information technology to embed learning, create programs, systems and a range of document types. We also aim for our teaching in Computing to ensure that pupils become digitally literate – able to use, express themselves and develop their ideas through information communication technology (ICT) and, above all, to understand how to use ICT safely and responsibly.

Rationale – Why we do what we do... Over the past few years, St Paul's have found like nationally, that there has been a difference in the language skills of children as they enter in Reception. We have also noted a marked difference in the children's levels of independence, resilience, ambition (skills for life), this along with a need to promote a more deep rooted love of reading, has prompted us to shape our curriculum with greater emphasis in these areas. Reading does make up large parts of the computing curriculum from reading algorithms and comprehending them to reading documents and web pages. Computing is in the unique position of being a useful tool in helping to remove barriers to learning that reading difficulties can sometimes produce. Over the last two years St Paul's has worked hard to develop the resources and infrastructure in school to ensure that the whole and wider curriculum can be taught to its fullest extent and beyond where possible. Lots of work has been done to organise and invest into the infrastructure of the school one such project is to revitalise the ICT suite and add more iPads to the existing banks of iPads. This coupled with the increase in virtual learning on the new VLE will give the children a far more extensive and richer experience of the Computing curriculum.

How do we enable children to learn more and retain more?

Timings and timetable:

In Reception Computing is taught as part of 'technology' aspect of 'Understanding the World'. Computing is taught almost daily through whole class, small group, 1:1 and individual learning. The children experience Computing through three main avenues. Through the IWB, iPads and interactive resources such as the Bee Bot. For the rest of the school it is taught in a mixture of discreet and thematic based lessons. Within each year group, the timetabling of Computing is flexible, depending on the topic. However, the timings average to approximately 1 hour per week. This ensures breadth and depth of knowledge and secure knowledge retention and skills progression.

Computing – An Overview:

Our world is forever changing and becoming more technologically based. As such our curriculum at St Paul's aims to equip our pupils with a high quality Computing curriculum. To do this the children will experience a variety of hardware and software. This experience will allow them to present information in a myriad of ways, see how to create a solution to a given problem, be safe and responsible whilst using technology and develop resilience. Computing is taught as part of a termly topic, focusing on knowledge and skills stated in the National Curriculum. Progression occurs in the way children's understanding of: computation thinking, communication and an awareness of technology. In KS1 the Computing curriculum is designed to show children safe and responsible use of technology and to introduce the idea of computation thinking. KS2 is where this computation thinking and logic is embedded through coding and problem solving.

Computing is an ideal tool to allow all children at St Paul's to access learning no matter their learning type and style. It enables children to have barriers removed such as handwriting, difficulty with spelling and can help develop reading and times tables through the many interventions available. ICT in particular can be a very strong way to vary teaching allowing some children to overcome learning barriers to enable them to access the learning. Enrichment is an important part of the Computing curriculum. St Paul's provides several opportunities for extracurricular and enrichment that utilises Computing and ICT. These do tend to change depending on the specific topic being covered. Historically robotics, history, coding, geography and science have been curriculum areas that have been covered by workshops and enrichment days. St Paul's also has a 'Computing' after school club, which aims to provide a wider opportunity for children to explore Computing.

Assessing Outcomes in Computing

Throughout their education at St Paul's, our pupils should show an increasing understanding, respect and use of technology, and how to use it safely and responsibly. They should be knowledgeable about the three key areas of Computing: Computational thinking, digital literacy and ICT. They should have an understanding of how technology is evolving and how to use this knowledge to help enhance their learning. Our children should leave our school equipped with Computing skills and knowledge that will enable them to be ready for the curriculum at Key Stage 3 and for life as an adult in the wider world.

Assessing outcomes in Computing is rigorous and focused. Teachers regularly review learning and knowledge within and after lessons and adapt their teaching as a result. In Reception, all children have a personalised 'Learning Journey' using Tapestry which is used to record learning from all areas of learning across the year. Teachers use this evidence to ensure that all children are making progress and attaining well. Where children are not meeting expected standards, teachers provide additional support where appropriate.

The Computing subject leader completes regular monitoring of attainment and progress through a combination of pupil voice, learning walks and matching actual outcomes to intended outcomes as identified in the Computing National Curriculum. This monitoring of the Computing curriculum along with discussion with staff will identify next steps for the subject. This being for the member of staff or the subject as a whole.

The Computing subject leader then has a formal meeting with senior leaders to discuss outcomes and next steps. The Curriculum Senior Leader uses the information given to them to hold Governor sub-committee 'Curriculum and Achievement Meetings' each half term. These are in addition to the Pupil Progress Meetings that identify and celebrate pupil progress and set agreed targets for narrowing any gaps in knowledge and skills. One major strength of the computing is the assistance it can give to those children who sometimes struggle with accessing everyday learning. The technology allows for such strategies as dictation, typing and spell checking. This would allow for more evidence to be gathered from these children allowing for smaller steps in progression and attainment more evident.

Enrichment

Enrichment opportunities within and across all areas of the curriculum are important to St Paul's to help develop the children's skills for life. Our research shows that although lots of children have been exposed to visits, the quality of these visits vary. For example, verbal feedback showed that although lots of children at our school may have visited parks and green spaces, the opportunities to 'dig deep' into the geographical knowledge are limited. Therefore, our enrichment opportunities for Geography provide a clear purpose with plenty of opportunities for extension and challenge. They are relevant, age appropriate and inclusive to all.

Year Groups	Enrichment Opportunity	Term of Enrichment	Topic
Rec	Opportunity: Purpose:		
1	Opportunity: Purpose:		
2	Opportunity: Purpose:		
3	Opportunity: Purpose:		
4	Opportunity: Computing Club Purpose: To give the opportunity to children who have a keen interest in computing to have a chance to explore more widely the world of computing.	Summer	
5	Opportunity: Computing Club Purpose: To give the opportunity to children who have a keen interest in computing to have a chance to explore more widely the world of computing. Opportunity: Computing Leader/Gurus/Genius Purpose: To be trained up to help across the school in matters of computing from helping in Reception with iPads to setting up technology for teachers in assembly, before lessons etc.	Autumn	
6	Opportunity: Computing Club Purpose: To give the opportunity to children who have a keen interest in computing to have a chance to explore more widely the world of computing.	Spring	

