Making a difference with kindness, creativity and pride

ST PAUL'S COMPUTING CURRICULUM

Intent

Computing at St. Paul's intends to develop 'thinkers of the future' through a modern, ambitious and relevant education in computing. We want to equip pupils to use computational thinking and creativity that will enable them to become active participants in the digital world. It is important to us that the children understand how to use the ever-changing technology to express themselves, as tools for learning and as a means to drive their generation forward into the future.

Whilst ensuring they understand the advantages and disadvantages associated with online experiences, we want children to develop as respectful, responsible and confident users of technology, aware of measures that can be taken to keep themselves and others safe online.

Our aim is to provide a computing curriculum that is designed to balance acquiring a broad and deep knowledge alongside opportunities to apply skills in various digital contexts. Beyond teaching computing discreetly, we will give pupils the opportunity to apply and develop what they have learnt across wider learning in the curriculum.

A key part of implementing our computing curriculum was to ensure that safety of our pupils is paramount. We take online safety very seriously and we aim to give children the necessary skills to keep themselves safe online. Children have a right to enjoy childhood online, to access safe online spaces and to benefit from all the opportunities that a connected world can bring them, appropriate to their age and stage.

IMPLEMENTATION

Early Years

Although Computing is not taught explicitly in our Reception classroom, skills the children learn in other parts of their curriculum will enable them to access the Year 1 curriculum when they transition into KS1. They are given opportunities to play with real computers and Beebots but are also encouraged to use pretend technology as part of their role play. For example, they may use a toy phone or washing machine.

The table below outlines the links between the EYFS curriculum and Computing.

Computing			
Three and Four-Year-Olds	Personal, Social and Emotional Development		• Remember rules without needing an adult to remind them.
	Physical Development		• Match their developing physical skills to tasks and activities in the setting.
	Understanding the World		• Explore how things work.
Reception	Personal, Social and Emotional Development		• Show resilience and perseverance in the face of a challenge. • Know and talk about the different factors that support their overall health and wellbeing: - sensible amounts of 'screen time'.
	Physical Development		• Develop their small motor skills so that they can use a range of tools competently, safely and confidently.
	Expressive Arts and Design		• Explore, use and refine a variety of artistic effects to express their ideas and feelings.
ELG	Personal, Social and Emotional Development	Managing Self	• Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. • Explain the reasons for rules, know right from wrong and try to behave accordingly.
	Expressive Arts and Design	Creating with Materials	• Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

The KS1 and 2 Curriculum

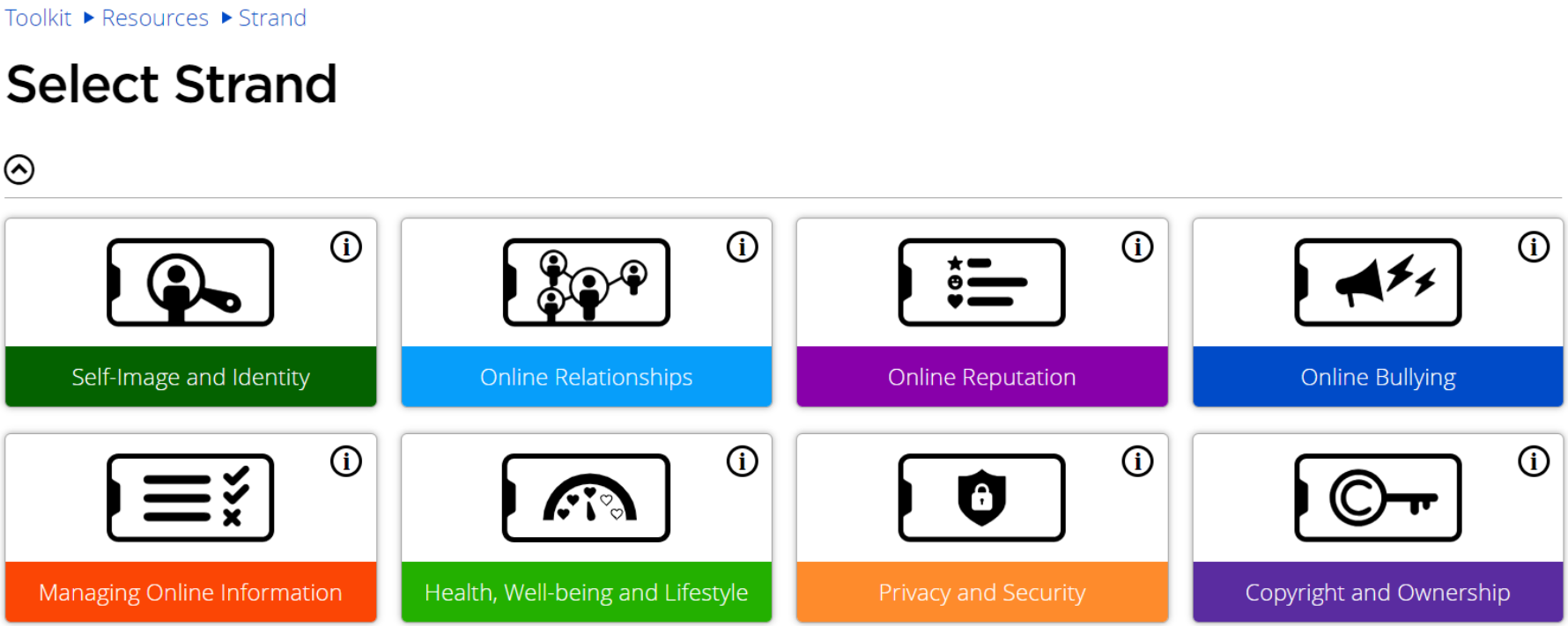
Our scheme of work for Computing is adapted from the 'Teach Computing' Curriculum and covers all aspects of the National Curriculum. This scheme was chosen as it has been created by subject experts and based on the latest pedagogical research. It provides an innovative progression framework where computing content (concepts, knowledge, skills and objectives) has been organised into interconnected networks called learning graphs.

The key strands of our curriculum are:

- **Systems and networks**
- **Creating media**
- **Programming**
- **Data and information**
- **E-safety**

Computing Curriculum Overview 24-25 (NCCE & Evolve) Key concept: Systems and networks, programming, data and information, creating media						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Technology is no longer mentioned within the EYFS. Opportunities for exposure and use of devices such as beebots, iPads and the smartboard may be explored throughout the year.					
Year 1	Technology Around Us (Lessons 1&2, 4&5) Computing Systems and Networks (Lessons 2&3, 4, 5&6)		Digital Painting		Programming – Moving a robot (Beebot)	
		Y1 privacy and security		Y1 managing online information		Y1 health, wellbeing and lifestyle
Year 2		Digital Photography		Pictograms		Programming – An introduction to quizzes
	Y2 online relationships		Y2 online bullying		Y2 online reputation	
Year 3/4	The internet (Y4)		Programming – events and actions (Y3)		Creating media – photo editing (Y4)	
		Y3 online relationships		Y3 privacy and security		Y3 managing online information
Year 4/5	Sharing information (Y5)		Data Logging (Y4)		Programming – repetition in games (Y4)	
		Y5 online relationships		Y5 online reputation		Y5 self-image and identity
Year 6	Communication		Data and information – introduction to spreadsheets		Web page creation	
		Online relationships		Privacy and security		Health, wellbeing and lifestyle

We also use Evolve for internet safety. Each class covers at least 1 hour of internet safety each term.



Supporting children with SEND

We have a mastery approach to teaching and learning to ensure we are ambitious about what all children can achieve and we do not believe their ability is 'fixed' for every subject. In computing learning is scaffolded for children by:

- Re-iterating points during class discussions
- Displaying key vocabulary
- Modelling answers

- Assessing prior knowledge before teaching new content
- Addressing misconceptions early
- Positive reinforcement and strategies to encourage a growth mindset
- Checking in with learners throughout activities
- Modelling the correct use of vocabulary

Impact

We encourage our children to enjoy and value the curriculum we deliver. We want learners to discuss, reflect and appreciate the impact computing has on their learning, development and well-being. Finding the right balance with technology is key to an effective education and a healthy life-style. We feel the way we implement computing helps children realise the need for the right balance and one they can continue to build on in their next stage of education and beyond. We encourage regular discussions between staff and pupils to best embed and understand this.