Computing at St Andrew's

Our school aims to develop children into effective computer users, equipped with the skills to become active participants in the digital world.

The school feels it is important to balance the benefits offered by technology with a critical awareness of their own and other's online behaviour, developing effective strategies for staying safe and making a positive contribution online.

BIG IDEAS

Algorithms and programming - Understanding and explaining algorithms; designing, creating and debugging; simple programming; predicting outcomes; understanding variables, inputs and outputs.

Information Technology - Create, store, retrieve and improve digital content; using websites; cameras and sound equipment; use different software; collecting and presenting data; produce and upload podcasts; analyse and evaluate information; edit a film.

Digital Literacy - Using technology safely; keeping personal information private; being respectful and responsible; understanding school and home rules for the internet; knowing where to go for help; understanding computer networks; understanding truth online; understand risks and risk management.

Knowledge and Understanding - communication methods; search engines; emails; understanding of pop-ups; bookmarking; understanding advertising; use passwords; using strategies to verify information; understand copyright; cyberbullying; how to report something online; avatars; understanding plagiarism; understanding the pro's and con's of the internet; understanding scams and phishing; security settings; publishing and removal of content; malicious messages.

CONTENT & SEQUENCING

Our school follows the scheme of work created by Purple Mash. We use our teacher knowledge to supplement this scheme to ensure the children have a broad range of software's and technologies in which they are able to use as the move through out education and into the working world. A separate progression map has been agreed by staff and created to ensure the children progress through the software each year, building upon the prior knowledge taught.

EYFS - Term 2 onwards - using a mouse and keyboard to navigate a chosen website for children, beebots for coding, E-Safety, navigating Purple Mash. The key focus in EYFS is on staying safe when using technology.

Year 1 and 2 - logging on; typing skills; coding (Beebots/espresso/Purple Mash); using search engines to find websites; word documents; emailing as a class; e-safety, making topic book covers; saving and manipulating digital content; historical research.

Year 3 and 4 - typing skills, copying and pasting; rainforest databases; SMART rules; making topic book covers; spreadsheets; coding (Espresso, Scratch); using the internet; e-safety, researching.

Year 5 and 6 - making topic book covers; PowerPoint presentations on the Victorians (animations, sounds, links); Brushes App (Victorian art); excel spreadsheets; coding; internet research, e-safety.

All classes have access to iPads where the children can use relevant apps and websites to support their learning.

Coding: Beebots, Scratch, Espresso, Purple Mash and Coding.org.

LINKS WITH ENGLISH & MATHS

- Spreadsheets (excel)
- Coding
- Data
- Writing—typed up
- Mathletics, TTRockstars, Spelling Shed, SPaG.com, Star Maths, Purple Mash
- Microsoft—Excel, PPT
- Science—Data

RETRIEVAL PRACTICE

- Can you still...? Activities systematically included in teaching sequences.
- Cross year group links made explicitly to refer to prior learning.
- Important computing concepts and vocabulary used e.g debugging, algorithms.
- Homework set to consolidate learning. Homework can also be Computing based e.g. research projects.
- Purple Mash is accessible at home. Homework can be set using this platform.

PROGRESS

- Units of work are carefully sequenced so prior knowledge and concepts are built upon from previous year groups and units.
- Our cross curriculum is the progression model.
- End of unit written tasks/quizzes/ knowledge organisers.
- E-safety is consolidated throughout all Computing lessons.

SUPPORT

- Online safety newsletter sent out to parents monthly.
- The school takes part in Safer Internet Day annually.
- Online safety speakers come into school to talk to children and adults.
- Coding Club
- Use of computers for homework club.
- Microsoft Teams used to link home and school.