

Computing Curriculum Overview

Intent

At Park Schools Federation, our computing curriculum equips pupils to thrive in a digital world. We want children to:

- Develop **computational thinking** and problem-solving skills.
- Understand how digital systems work and how to use them effectively.
- Become confident creators of digital content through coding, design, and media.
- Learn how to use technology safely, responsibly, and respectfully.
- Appreciate the role of technology in society, past, present, and future.

Implementation

- We use the **Teach Computing scheme** to support the teaching of computing and **Project Evolve** to support the teaching of online safety. This provides clear progression and ensures full coverage of the **National Curriculum**.
- **Progressive structure:**
 - In **KS1**, children explore basic programming (using Bee-Bots, Scratch Jr), understand simple digital systems, and learn safe online behaviour.
 - In **KS2**, pupils progress to more complex coding (Scratch, block-based and text-based programming), understanding networks and the internet, and creating purposeful digital content (presentations, data handling, multimedia).
- **Enquiry-based learning:** Lessons are structured around questions (e.g. *How can I make a character move on screen?*).
- **Flashback questions:** Used to reinforce technical vocabulary, coding knowledge, and e-safety principles from earlier learning.
- **Key concepts:** *Programming, systems, information, creativity, communication, and e-safety* are revisited across year groups.
- **Vocabulary focus:** Key terms (*algorithm, debug, sequence, input/output, network, database, cyberbullying*) are taught and applied.
- **Cross-curricular links:** Computing links with Maths (logic, data), Science (simulations), English (digital publishing), History/Geography (research, presentations), and D&T (programming motors, digital design).
- **E-safety focus:** Online safety is embedded in every unit, with content from Project Evolve delivered in conjunction with Teach Computing curriculum. Regular PSHE links are also made where appropriate.

Impact

By the end of KS2, pupils will be able to:

- Use programming skills to design, create, and debug digital solutions.
- Understand and explain how digital systems and networks function.
- Create purposeful content using a range of digital tools.
- Use technology safely, responsibly, and respectfully.
- Apply computational thinking to solve problems in a structured, logical way.

Pupils leave Park Schools Federation as responsible digital citizens and confident users of technology, ready for the next stage of their education and life in a digital society.

Topic Overview

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
1	Privacy and Security Self-Image Computing Systems and Networks – Technology Around Us	Online Reputation Online Relationships Creating Media – digital writing	Online Bullying Programming A – Moving a robot	Health, Well-Being and Lifestyle Data and information – grouping data	Managing Online Information Creating Media – digital painting	Copyright and Ownership Programming A – Moving a robot
2	Privacy and Security Self-Image Computing Systems and Networks - IT around us	Online Reputation Online Relationships Digital Media – creating musical composition	Online Bullying Creating Media – Digital Photography	Health, Well-Being and Lifestyle Data and Information - pictograms	Managing Online Information Programming A – Robot algorithms	Copyright and Ownership Programming B – programming quizzes
3	Privacy and Security Self-Image Computing Systems and Networks – connecting computers	Online Reputation Online Relationships Creative media – stop frame animation	Online Bullying Programming A – sequencing sounds	Health, Well-Being and Lifestyle Creating Media – Desktop publishing	Managing Online Information Data and info – branching databases	Copyright and Ownership Programming B – Events and Actions in Programmes.
4	Privacy and Security Self-Image Computing Systems & Networks – The Internet	Online Reputation Online Relationships Creating Media – audio production	Online Bullying Programming A – repetition in shapes	Health, Well-Being and Lifestyle Data and Information – data logging	Managing Online Information Creating Media - Photo Editing	Copyright and Ownership Programming B – Repetition in games
5	Privacy and Security Self-Image	Online Reputation Online	Online Bullying Programming B	Health, Well-Being and Lifestyle	Managing Online Information	Copyright and Ownership

	Systems and Networks - systems and searching	Relationships Creating media – introduction to Vector graphics	- Selection in quizzes	Data and Information - Flat-file databases	Programming A – Selection in physical computing	Creating media – video production
6	Privacy and Security Self-Image Computing Systems & Networks – communication and collaboration	Online Reputation Online Relationships Creating Media – web page creation	Online Bullying	Health, Well-Being and Lifestyle Data and Information - introduction to spreadsheets	Managing Online Information Programming A - variables in games	Copyright and Ownership