



# Cambridge Park Academy

Character - Preparation - Achievement



Computing

## Computing

At Cambridge Park, we have taken a thoughtful and developmentally appropriate approach to the teaching of computing. Rather than delivering computing as a standalone subject in its traditional form, we have embedded the use of technology across the curriculum in ways that are meaningful, functional, and relevant to our pupils' individual learning journeys. For many of our learners, discrete computing lessons may not always be accessible or appropriate due to the range of cognitive, physical, or sensory needs they experience. Instead, we have chosen to integrate the use of computers, tablets, other digital devices and programmes into everyday classroom practice. This approach allows pupils to engage with technology in purposeful contexts—such as using a word processor to write a story, researching on the internet with support, or using assistive technology to communicate. By mapping out where and how pupils use technology across the school day, we ensure that all learners are developing key digital skills in a functional and supported way. These skills are not taught in isolation but are connected to real-life tasks that are preparing our pupils for independence, work-related learning and life beyond school. Our focus is on accessibility, familiarity, and confidence with technology, which are essential foundations for digital inclusion in the modern world. We also recognise that some of our pupils show strong interest or ability in computing, including in areas such as programming, coding, or game design.

For these learners, we offer specialist provision through personalised learning plans, enrichment opportunities, and access to more advanced tools and software. This ensures that their talents are nurtured and extended in line with their potential, while still remaining rooted in the supportive and differentiated environment they need to thrive. Ultimately, our computing strategy reflects our school ethos: to provide meaningful learning experiences that are tailored to the needs of each individual, equipping them with the tools they need to live as independently and fully as possible in a digital world.

### Fundamental Learners

#### Aims:

- Develop attention and response to stimuli.
- Build familiarity with technology as a part of daily life.
- Encourage anticipation and preference choices using digital tools



#### Key Themes

- Technology as a Sensory Tool: Using interactive whiteboards, sensory apps, touchscreens, and switches for sensory stimulation.
- Cause-and-Effect Understanding: Pressing buttons to elicit a response (e.g., using an iPad to play a sound or image).
- Exploratory Play: Using tablets to explore musical instruments, art apps, or light/sound simulations.
- Using devices for assisted communication

### Foundational Learners

#### Aims:

- Introduced to foundational concepts of technology use.
- Develop independence in choosing and using familiar digital tools.
- Promote understanding of technology's role in everyday life.



#### Key Themes

- Early Digital Literacy: Using simple programs to draw, write names, or tell stories.
- Understanding the World: Exploring how technology is used at home, school, and in the community.
- Communication and Expression: Using devices for storytelling, photos, videos, or assisted communication.

### Functional Learners

#### Aims:

- Growing confidence and functional skill development with digital tools.
- Curriculum access via technology (e.g., research, writing support, communication aids).
- Extend and challenge through coding, game design, or multimedia projects where appropriate.



#### Key Themes

- Digital Literacy: Typing, saving, retrieving files, online safety, using educational software.
- Information Technology: Creating documents, presentations, digital art, and using tools to collect or display information.
- Computer Science (for appropriate learners): Introduction to coding, sequencing, problem-solving using apps like Scratch, Kodable, or LEGO Education tools.

### Implementation Examples and devices

- iPads/tablets with sensory apps (e.g. *Cause & Effect Sensory Light Box*)
- Interactive whiteboards (for touch-based exploration and visuals)
- Big Mack switches (for simple communication or activating devices)
- Talking buttons / recordable sound devices
- Eye gaze devices (e.g. *Tobii Dynavox*)
- Switch-activated toys (e.g. bubble machines, fans, lights)
- Touchscreen laptops or All-in-One PCs
- Sound/light sensory boards
- Adaptive mice and keyboards (large keys, rollerballs)
- Simple musical apps/instruments (e.g. virtual piano, drum pad)

- iPads/tablets with drawing, phonics, and early writing apps (e.g. *Doodle Buddy, Hairy Letters*)
- Digital cameras or iPads for photo taking during activities
- Bee-Bots or Blue-Bots (intro to sequencing, direction)
- Interactive whiteboards for group activities
- Simple voice recorders / *ChatterPix* app (to record voices with pictures)
- Remote control toys (to explore control and direction)
- Digital microscopes (to explore natural objects up close)
- Early learning coding toys (e.g. *Code-a-Pillar, Cubetto*)
- Assistive communication apps (e.g. *Grid for iPad, Proloquo2Go*)

- Laptops/Chromebooks for word processing, presentations, and research
- iPads/tablets for filming, editing, and app-based coding
- Micro:bit or Raspberry Pi (for basic programming and projects)
- Bee-Bots or Pro-Bots (for programming and control)
- Scratch (on desktop or tablet for block-based coding)
- LEGO Spike / WeDo kits (robotics and engineering)
- Google Workspace / Microsoft Office tools
- Assistive tech: text-to-speech software, voice typing, adapted input devices
- Green screen kits (for media projects using iMovie or DoInk)
- Online safety and digital responsibility resources (e.g. *Interland by Google*)

### Enrichment and Personalised Opportunities (Across All Groups)

For learners with a strong interest in computing, there are opportunities to access 1:1 or small group sessions in areas such as coding, robotics, or game design, and to participate in digital projects using specialist software and adaptive tools - while these opportunities are available, they are not fixed or prescriptive; engagement is shaped by each learner's interests, strengths, and readiness.

Some students choose to be part of the media team, where they film, edit, and livestream full-featured media productions. The media team also works towards a certificate in Creative and Digital Media, which includes the chance to develop self-directed projects such as animations or campaign adverts.

Other interested Key Stage 4 students can also take part in aspects of media work, such as production support or using equipment during speaking and listening sessions.

All Key Stage 4 pupils experience media equipment and software use as part of their digital and creative media award.

