DARWEN ST JAMES



Nurturing Ambition
Through a Living Faith

Computing Policy

Mission

Nurturing ambition through living faith.

Vision

Our Academy delivers a purposeful curriculum through its living Christian faith. We nurture ambition in all our learners in order for them to become positive citizens of tomorrow.

Bible

‘Let us not love with words or speech alone but with actions and truth.’ — 1 John 3:18

What do we mean by computing?

> "A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through information and communication technology – at a level suitable for the future workplace and as active participants in a digital world."
>
> — *National Curriculum Computing Programme of Study*

As a Google school, we utilise Google Workspace for Education alongside a range of technology, including:

- Communication tools, Google Workspace tools, and specific subject-related software Interactive Promethean screens
- Sound and audio recording devices
- Chromebooks
- Digital cameras
- Remote control toys and programmable devices (e.g., Bee-Bots)

These resources are used both to explicitly teach computing capabilities and to enhance access to the wider curriculum.

Why computing?

Computing is an integral part of life for our children and young people. Effective, meaningful use of technology raises attainment, enhances teaching, and prepares pupils for a rapidly

evolving digital world. Through a clear progression of skills, our children learn to use a variety of technology confidently, safely, and effectively across all areas of learning.

Aims and Objectives

We aim to ensure all pupils access a robust and inclusive computing curriculum by:

- Developing skills, knowledge, and computational thinking through systematic, appropriately challenging activities.
- Broadening children's understanding of our technologically diverse world through sensory and practical exposure in EYFS and Year 1.
- Structuring formal computing teaching from Year 2 through to Year 6, utilising Purple Mash as our core scheme of work.
- Fostering positive, responsible attitudes toward technology and modeling effective use of digital resources.
- Adapting computing provision so that all learners, including those with SEND, can access, record, and excel in their computing education.
- Ensuring all pupils and staff maintain a robust understanding of online safety, including digital footprint, online bullying, and protection against online risks.

Curriculum Organisation and Progression.

Early Years Foundation Stage (EYFS) & Year 1: Exposure & Familiarity

In EYFS and Year 1, pupils are given rich opportunities to be exposed to and explore technology through play, continuous provision, and cross-curricular learning.

- **EYFS:** Children explore technology as part of *Understanding the World*, gaining familiarity with hardware (touchscreens, Mini Mash, role-play tech, cause-and-effect toys, audio recorders) to build vocabulary and physical confidence.
- **Year 1:** Pupils consolidate foundational digital literacy and fine motor skills (e.g., using trackpads, mice, keyboards, touchscreen Chromebooks, and basic recording tools) across subjects, preparing them for formal computing schemes in Year 2.

Year 2 to Year 6: Formal Computing Teaching

Formal instruction against the National Curriculum computing strands begins explicitly in Year 2. Our curriculum is structured around the core scheme Purple Mash, ensuring full coverage across three key strands:

1. **Computer Science:** Understanding algorithms, writing/debugging programs, and logical reasoning.

2. **Information Technology:** Using digital tools to create, organise, store, manipulate, and retrieve content.

3. **Digital Literacy:** Navigating digital spaces safely, understanding technology beyond school, and protecting personal information.

Inclusive Practice and Adaptive Teaching in Computing

We are committed to ensuring equal access to computing regardless of race, gender, intellectual, or physical ability. Computing is adapted proactively so all pupils—including those with SEND—can access the learning:

- **Visual & Symbol Supports:** Use of symbol cards, visual step-by-step guides (e.g., Widgit/PCS symbols), and screen overlays to support navigation, code blocks, and instructions.

- **Audio & Recording Devices:** Utilising built-in Chromebook microphones, voice notes, and audio tools (e.g., 2Talk / Purple Mash recording features) as alternatives to typed text for explaining code or evaluating work.

- **Chunking & Scaffolded Instruction:** Breaking down complex tasks into smaller, manageable micro-steps; using pre-written code snippets for debugging before writing full scripts.

- **Assistive Hardware & Hardware Adaptation:** Alternative mice (trackballs), physical keyboards with large key overlays, touchscreen controls, and adaptive switches where required.

- **Pair Programming & Peer Modeling:** Utilising collaborative coding pairs to foster peer support and oral explanation.

Recording and Assessment

- **Purple Mash Scheme:** Used as the primary delivery platform and assessment framework from Year 2 upward.

- **Assessment:** Teachers assess progress using the built-in Purple Mash assessment judgments across the three curriculum strands. This informs future planning and subject coordinator reviews.

- **Portfolios:** Pupil work is saved digitally within Purple Mash and stored in shared school Google Drive portfolios for moderation, subject leadership review, and reporting to parents.

- **EYFS:** Tech exploration is observed through continuous provision and mapped against EYFS developmental milestones within *Understanding the World*.

Access to Hardware and Infastructure

- **Classroom Hardware:** Each classroom is equipped with a teacher Chromebook and Promethean Interactive Smartboard.
- **Shared Hardware:** Key Stages share access to dedicated Chromebook trollies to support both computing lessons and cross-curricular research/creation.
- **Sensory/Physical Tech:** Bee-Bots, digital audio recorders, and MicroBits are available to support early computational thinking and cross-curricular tasks.

Roles and Responsibilities

- **Computing Subject Leader:** Oversees curriculum progression, manages Purple Mash subscriptions and Google Workspace/Drive evidence, audits hardware/software, supports staff CPD, and ensures adaptive strategies are embedded.
- **Class Teachers:** Plan and deliver adapted lessons, assess progress on Purple Mash, model correct equipment use, and embed online safety into daily routines.
- **Technical Support :** Ensures network security, Google admin console settings, device maintenance, annual electrical testing (PAT), data sanitation, and certified hardware disposal.
- **Headteacher & Governors:** Oversee policy implementation, licensing compliance, health and safety protocols, and long-term hardware replacement planning.