

# Danson Primary School



## Computing Policy

*Nurture-Believe-Inspire Achieve*

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### **Aim:**

The computing curriculum at Danson Primary School equips all pupils with computing skills to progressively develop their computational thinking, digital literacy, e-safety skills and creativity. Cross curricular links with computing and other subjects enables pupils to build on their knowledge and understanding so that they can become digitally confident citizens in our ever-changing technological world.

Children are taught an in-depth computing curriculum, covering computer science where pupils experience writing computer programs in order to solve problems. They also evaluate and apply information technology to be digitally literate and they are able to be responsible and competent online. These skills help Danson pupils to be safe, independent users of technology beyond the classroom.

At school and home, pupils have access to Google for Education and can access Google Classroom. This platform maintains an effective link between home and school learning and is reflective of the real world we live in today. Children have access to Chromebooks, laptops, iPads and other hardware at school to provide accessibility for all. Our computing resources ensure children are exposed to a rich curriculum where knowledge and skills progressive sequentially.

### **Objectives:**

- To ensure all staff, pupils, parents and governors are confident, independent users of technology.
- To develop the skills, knowledge and understanding in order to design and make computer programs for a wide range of purposes.
- To facilitate children to critique, evaluate and test their own and other's computer programs.
- To motivate and inspire pupils to apply their computing skills beyond the curriculum, in our rapidly-changing, technologically-advanced world.
- To strengthen children's understanding of how to be safe online and how to choose devices and software to be responsible digital-users.
- To develop computing skills through relevant contexts.
- To enrich learning and promote collaboration and individual research and responsibility when using technology.
- To teach pupils how to care for and respect equipment.

### **Planning:**

At Danson Primary School, we use the programme 'Switched on Computing' to teach the objectives from the National Curriculum and go beyond the basics. We use this

scheme and make it bespoke to the children, relating to their interests. We link the knowledge and skills for each of the computing units to the humanities topic for each year group. A broad range of skills are taught throughout the year groups which allow progression of skills and knowledge to be built upon over time. The materials provided make suggestions for how long to teach objectives and with which resources, however, we adapt the materials to meet the needs of all learners.

### **Progression:**

Progression in computing has been meticulously planned for in the programme materials that we use. When teaching the subject of computing, there is a clear focus on the following strands:

- Computer science
- Information technology
- Digital literacy

Children are provided with multiple opportunities to achieve the national curriculum objectives in a variety of contexts. Links are explicitly made between the strands of the computing curriculum.

### **National Curriculum**

#### **EYFS**

The EYFS framework no longer explicitly includes a strand for technology, but computing skills in EYFS are a vital tool for children to have a well-rounded education. At Danson, we integrate computing and technology skills into our curriculum so that our youngest learners can still navigate the digital world confidently and safely. We provide lots of opportunities for unplugged activities that don't use a computer. This might be taking photos, playing with a keyboard in the role-play area or breaking down a problem into smaller pieces to focus on computational thinking. 'Debugging' happens by encouraging our EYFS pupils to be resilient and practise an element of trial and error for tricky tasks until they find a solution. E-safety is promoted in EYFS and all pupils have lessons to discuss the importance of being safe when using technology, including when using a parent's phone or tablet.

#### **Key Stage 1**

Pupils are taught to:

- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- Create and debug simple programs
- Use logical reasoning to predict the behaviour of simple programs
- Use technology purposefully to create, organise, store, manipulate and retrieve digital content
- Recognise common uses of information technology beyond school

- Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

## **Key stage 2**

Pupils are taught to:

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

## **Computing Physical Resources:**

- Chromebooks (including some touch screen versions)
- iPads
- Laptops
- Computers
- Headphones
- Microphones
- Keyboards
- Mice
- Beebots
- Interactive whiteboards
- Programmable toys

## **Recording and Assessment:**

All children save digital work in their Google Drive, which teachers can access to monitor. Other methods of saving work may be appropriate for assessment, such as uploading work to a shared blog. Teachers are responsible for assessing pupils' work and the computing subject lead regularly monitors and moderates these assessments.

At the end of each term summative and formative assessment is inputted into the school's assessment system and monitored by the computing Subject Leader.

### **Roles and Responsibilities**

All stakeholders work together to ensure the implementation of the Computing Policy.

#### **The governing body will:**

- Ensure there is a link governor responsible for computing, who will meet regularly with the subject lead
- Ensure arrangements for teaching and learning of computing are regularly reviewed and agreed, including provision for funds for resources

#### **The Headteacher will:**

- Determine the ways computing enriches and extends the wider curriculum at Danson Primary School
- Provide a budget for computing resources, hardware and software
- Work alongside the computing subject leader to support staff in the teaching and learning of the subject
- Ensure the subject leader is monitor computing through lesson observations, work scrutiny and pupil voice
- Report to governors about progress made in computing

#### **The Computing Subject Lead will:**

- Support and motivate teachers and colleagues in the teaching and learning of computing
- Provide subject knowledge and expertise in the computing curriculum
- Promote cross-curricular links between computing and the wider curriculum
- Enrich the curriculum with activities associated with computing, such as 'Safer Internet Day'
- Develop and monitor assessments of the subject
- Manage the provision of resources
- Keep up to date with any developments in the teaching of computing
- Monitor the quality of education of computing across school
- Contribute to staff professional development in computing
- Create, follow and evaluate an annual action plan in line with any school development priorities
- Liaise with the link governor regularly about computing updates

#### **The Class Teacher will:**

- Ensure the computing curriculum is taught in line with the programme of materials provided (Switched on Computing) and the national curriculum
- Record and assess pupils' work and progress in computing
- Seek professional development where necessary
- Update the computing subject leader of any issues with equipment or resources
- Work alongside the subject lead and SLT to report on children's outcomes in the subject.

### **Health and Safety**

Pupils are taught how to use equipment safely and there is signage to support staff in the event of electrical faults. All hardware is PAT tested and our premise manager and technicians from Allied Technical Support ensure resources are suitable and fit for purpose. E-safety agreements are written and signed by all pupils at the beginning of the year. This includes pupils' use of digital equipment and resources. Pupils are aware of laws regarding internet safety, copyright and intellectual property rights, when age-appropriate.

### **Safeguarding and Internet/E-safety**

This policy works alongside our safeguarding policy, acceptable use policy, anti-bullying policy, e-safety policy and home-school agreement documents.

<b>Policy Owner</b>	<b>Computing Subject Leader</b>
<b>Approver</b>	<b>Deputy Head Teacher and Head Teacher</b>
<b>Date Approved</b>	<b>February 2024</b>
<b>Next Review</b>	<b>February 2025</b>