

Computing Policy



Intent

Excellence

At St Thomas', we have devised a bespoke high-quality computing curriculum that meets the needs of all of our children, whilst upholding our ethos of excellence. We have recognised the importance that computing has in a world where technology, which is continuously evolving and improving, is fundamental to everyday life. We realise that St Thomas' pupils will need to have the computing abilities required to set them up for their future lives and careers in our ever-changing digital world. The Computing curriculum is organised coherently ensuring children build upon their knowledge and skills year upon year.

Experiences and Life Skills

We have recognised that our pupils have regular access to digital devices, such as tablets, but not all children have access to a desktop computer. With this in mind, we have mapped out the computing curriculum to include a wide range of hardware and software, guaranteeing that they have the skills needed for their futures. The computing curriculum introduces children to a range of hardware and software to broaden their knowledge and skills, allowing them to apply their learned skills thorough a range of different means.

Celebrate Diversity

Our curriculum is inclusive, with provisions and resources available, ensuring that every pupil can access the subject. When appropriate, children will be introduced to significant STEM individuals who have had an impact on the technology we use today, such as Ada Lovelace.

Christian Values

The teaching of internet safety runs through the computing curriculum, allowing our children to develop their moral

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compass and be responsible users of ICT. When teaching Internet Safety, we will always make the connection back to St Thomas' core Christian Values of respect, friendship, peace, responsibility, thankfulness and compassion.

Sometimes during computing the children may be asked to work with others, or offer feedback on a project completed by a peer. It is important that children uphold our Christian values of friendship and respect, whilst giving honest and constructive feedback.

Reading and Vocabulary

We explicitly teach subject-specific vocabulary for the children to learn and apply, these will be referred to throughout lessons and are documented on a subject knowledge organiser for the pupils to refer back to. Computing vocabulary has been planned to ensure progression throughout the school.

Knowledge Rich and Academic

The computing curriculum ensures that all of the children leave school with a secure knowledge and thinking skills of the three main strands that underpin computing: computer science, digital literacy and information technology. There will be a focus during lessons on correct use of terminology and definitions of STAR words, as vocabulary is at the heart of our St Thomas' curriculum.

The curriculum is progressive and builds upon prior knowledge and skills taught throughout the year groups. Our aim is that by the time all children leave St Thomas' they are competent and creative users of information and communication technology, who can confidently analyse and solve problems involving a wide range of different technologies.

Implementation

Expectations

- **Timetabling computing** - St Thomas' staff recognised that the teaching of computing was sometimes restricted due to time, therefore we decided to teach computing through discrete teaching days through the year, with classes off timetable for these days.
- **Use of resources** - Each computing unit has a computing knowledge organiser with key vocabulary and useful information, these are to be used in the lesson and sent home to allow children to develop their learning at home. The computing lead and class teachers are to ensure that they have all of the required resources and software to teach lessons. We have a fortnightly visit from an ICT technician who is available to update, maintain and download any necessary resources.
- **Evidencing** - Children's work will be evidenced through screenshots, saved files, photographs, and teacher assessment notes. The computing lead will gather evidence from all teachers following their computing days. This evidence will be collated into a whole school portfolio, which will show the progression of skills across the year groups. Where possible, children can also save evidence to their personal Seesaw learning journals.
- **Assessment** - Formative assessment of computing will be carried out by class teachers during their computing days. The class teacher will have a set of skills that they expect pupils to understand and apply by the end of the session, they will keep a record of pupils' progress, highlighting any children who have not met or who have



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exceeded these expectations. Use of pre/post assessment tasks will support these judgements.

- **Displays** - There is a display in the computing suite which clearly displays the main expectations by the end of Key Stage One and Key Stage Two. Online Safety reminders and key vocabulary is also displayed. The board has been designed so that teachers across all year groups can use it to refer to during their computing time in the suite.
- **Online safety** - Internet safety is taught through computing sessions and through discrete PHSE sessions (see St Thomas' Internet Safety Knowledge Overview document). Teachers will evidence these sessions in individual class PHSE scrapbooks. The school will also ensure that we take time to recognise the national Safer Internet Day (usually February time), with a whole school assembly and some follow up activities in classes. There is an online safety poster in the computer suite and by the computer stations in every classroom to serve as a reminder to the pupils.

Structure of the lesson

- **Retrieval** - The children will begin the day with a pre-assessment task for the teacher to assess current understanding and skills.
- **Vocabulary** - Through use of knowledge organisers pupils will be introduced to key STAR word terminology, ensuring correct pronunciation and exploring definitions.
- **Teach** - They will then be taught a key computing skill with the teacher scaffolding pupils through carefully planned steps.
- **Partner/Independent task** - There will then be opportunity for pupils to apply this in an independent or paired context, before completing a post-assessment activity.
- **Follow up** - When appropriate, pupils may also apply skills such as evaluation and editing. Where possible, staff will plan a follow up session that allows children to consolidate their taught computing skills in a cross curricular context.

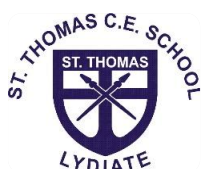
Impact

By the end of KS1, our pupils will be 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 (taught through Computing sessions and discrete PHSE lessons)

By the end of KS2, our pupils will be 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



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- 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 (taught through Computing sessions and discrete PHSE lessons)
- building AI awareness and thinking skills: Children are introduced to simple, age-appropriate ideas about how AI works. This strengthens their digital-literacy, critical-thinking and problem-solving skills, preparing them for a future where technology plays an important role.
- encouraging creativity and engagement: AI-related activities are designed to spark curiosity and imagination. Children explore how AI can help with tasks such as pattern recognition and creative projects, helping them understand technology in a hands-on, meaningful way.
- promoting safe, fair and responsible use: The curriculum teaches children how to use AI safely and ethically. We emphasise privacy, fairness and responsible decision-making so they understand both the benefits and the limitations of AI from an early age