



Cornerstone Academy Trust

Computing Policy

1. Purpose and vision

Cornerstone Academy Trust believes that a high-quality computing education enables pupils to understand and shape the digital world. Our curriculum develops knowledgeable, creative, critical and responsible users and creators of technology. It supports pupils to become confident problem solvers, effective communicators and thoughtful digital citizens who can adapt to new and emerging technologies.

Computing is taught as a rigorous subject in its own right and is also applied purposefully across the wider curriculum. Technology is selected because it improves learning, creativity, communication, accessibility or problem solving, not simply because it is available.

2. Curriculum intent

The Trust curriculum provides a coherent and progressive entitlement across three interconnected strands:

- Computer science: understanding computation, algorithms, programming, data, computer systems and networks.
- Information technology and digital competence: selecting and using digital tools purposefully to create, organise, analyse, communicate, collaborate and solve problems.
- Digital literacy: using technology safely, critically, responsibly and intelligently, including evaluating online information and understanding artificial intelligence.

By the end of Key Stage 2, pupils should have secure foundations in each strand and be able to apply prior learning with increasing independence in new contexts.

3. Curriculum implementation

The National Curriculum for Computing and the Trust computing progression provide the basis for planning. Teachers plan collaboratively, make links to prior learning and use subject-specific vocabulary accurately. Each class receives a planned computing unit each half term, alongside purposeful opportunities to apply digital knowledge and skills across other subjects.

Teaching may include direct instruction, modelling, discussion, practical activity, guided exploration, physical computing and unplugged approaches. Pupils should have repeated opportunities to design, create, test, debug, explain, evaluate and improve.

4. Computational thinking

Computational thinking is explicitly taught and reinforced across the curriculum. Pupils progressively learn to use:

- decomposition: breaking a problem into manageable parts;
- pattern recognition: noticing similarities, differences and repeated structures;
- abstraction: focusing on important information and removing unnecessary detail;
- algorithmic thinking: developing precise, ordered solutions;
- logical reasoning: predicting, explaining and justifying outcomes;
- evaluation: judging whether a solution is effective and fit for purpose;
- debugging: locating, explaining and correcting errors.

Productive struggle, perseverance, collaboration and learning from mistakes are treated as normal features of computing.

5. Programming and computer science

Pupils experience a planned progression from physical and block-based programming to age-appropriate text-based programming. They develop increasing independence in designing, creating, testing, debugging and evaluating programs.

Programming teaching is driven by concepts rather than by a particular product or language. Across Key Stages 1 and 2, pupils build understanding of algorithms, sequence, selection, repetition, variables, inputs and outputs, logical reasoning and the behaviour of programs. Where links to other subjects are purposeful, programming may be applied in context.

6. Digital competence and purposeful technology use

Pupils learn to choose and use digital tools deliberately. They create and refine digital content; organise and retrieve information; collect, represent and analyse data; and communicate and collaborate safely. Pupils should be able to explain why a chosen tool is suitable for the audience, content and intended outcome, and recognise when a non-digital approach would be more effective.

The Trust provides access to an age-appropriate range of programmable devices, physical computing equipment, digital creation tools, productivity platforms and online services. Specific products and subscriptions are recorded in curriculum and provision documentation so that this policy remains applicable as technology changes.

7. Digital and media literacy

Pupils are taught not to accept digital information at face value. In age-appropriate ways, they learn to consider:

- who created or published content, and for what purpose;
- the distinction between fact, opinion, advertising and sponsored content;
- the quality, currency and relevance of evidence;
- how claims can be checked through reliable alternative sources;
- misinformation, disinformation and manipulated media;
- how algorithms, recommendations and personalisation may influence what people see;
- whether content may have been generated or altered using artificial intelligence;
- copyright, ownership, attribution and respectful reuse of digital content.

Pupils are encouraged to ask: Who created this? Why was it created? What evidence supports it? Can it be verified elsewhere? Could it have been altered or generated?

8. Artificial intelligence and emerging technologies

Artificial intelligence literacy forms part of the computing and digital literacy entitlement. Teaching is age appropriate and aligned with the Trust Artificial Intelligence, Online Safety, Data Protection and Acceptable Use policies.

Pupils progressively learn:

- that artificial intelligence systems identify patterns in data and can generate or recommend content;
- that generative AI may produce plausible but inaccurate or fabricated output;

- that AI output should be checked, questioned and improved using human judgement;
- that training data and system design can introduce bias or limitations;
- not to enter personal, confidential or sensitive information into unapproved services;
- to consider privacy, ownership, attribution and the environmental and social implications of AI;
- to recognise AI-generated or manipulated text, images, audio and video where possible;
- when AI use is permitted, how permitted use should be acknowledged, and when independent work is required.

Only Trust-approved tools may be used with pupils. AI does not replace professional judgement, teacher-pupil relationships, safeguarding responsibilities or pupils' entitlement to develop foundational knowledge and independent thinking.

9. Online safety

Online safety is taught explicitly through computing and reinforced whenever technology is used across the curriculum. It is not confined to a single unit or event. Teaching follows the Trust Online Safety Policy and its planned progression, including Education for a Connected World, ProjectEVOLVE and relevant Teach Computing materials.

Pupils learn how to protect personal information, use secure behaviours, communicate respectfully, recognise unsafe or harmful content and contact, manage reporting and blocking, seek help from a trusted adult and understand that online actions can have lasting consequences. Any safeguarding concern is managed in accordance with the Trust Safeguarding and Child Protection Policy.

10. Early Years Foundation Stage

In the EYFS, computing foundations are developed through purposeful play, talk, stories, physical activity, continuous provision and carefully selected technology. Children explore how things work, follow and create simple instructions, recognise patterns, solve problems and develop perseverance. They begin to use devices safely and purposefully to create, communicate and represent ideas.

Technology use in the EYFS is balanced and developmentally appropriate. Digital experiences complement rather than displace talk, movement, practical exploration, outdoor learning and direct interaction with people and the physical world.

11. Inclusion, accessibility and equality

Computing is an entitlement for every pupil. Teaching is planned to remove unnecessary barriers while maintaining ambition. Teachers use scaffolding, explicit instruction, accessible resources, alternative means of recording, adapted input methods and assistive technology where appropriate.

Technology may be used to increase independence and access across the curriculum. Support is responsive to individual need and is informed by teachers, the SENDCo and relevant plans. Pupils who grasp concepts rapidly receive depth and challenge through explanation, evaluation, generalisation and more complex problem solving rather than unnecessary acceleration.

The Trust promotes equitable participation in computing and challenges stereotypes about who can succeed in the subject. Curriculum choices, examples and resources should represent a diverse society and ensure pupils with SEND, pupils learning English as an additional language and disadvantaged pupils can participate fully.

12. Assessment, evidence and feedback

Assessment in computing identifies what pupils know, understand and can apply. It distinguishes evidence of learning from the simple completion or appearance of a digital product.

Teachers use a proportionate range of evidence, including:

- questioning, discussion and accurate use of vocabulary;
- observation of pupils' approaches and choices;
- pupil explanation and prediction;
- retrieval and application of prior learning;
- practical demonstrations, programs and digital artefacts;
- testing, debugging and problem-solving activity;
- independent application in a new context;
- self-evaluation and peer explanation where these support learning.

Assessment is primarily formative and informs responsive teaching. At appropriate points, teachers make a summary judgement against the Trust progression and agreed unit outcomes. Judgements should identify whether expected knowledge and application are developing, secure or require further teaching. No single artefact or test is used in isolation.

Feedback may be verbal, written, digital, peer or self-evaluative. It should be timely, proportionate and help pupils improve their knowledge, reasoning, accuracy or application. In programming, testing, debugging, improving and explaining are often the most meaningful forms of feedback.

Evidence may be retained in approved digital or physical systems, but teachers are not expected to collect every activity. Evidence requirements should support curriculum evaluation without creating unnecessary workload.

13. Roles and responsibilities

Trust and school leaders

- ensure computing has sufficient curriculum time, leadership, resources and professional development;
- ensure the curriculum is coherent, inclusive and aligned with statutory and Trust expectations;
- maintain appropriate safeguarding, filtering, monitoring, data protection and cyber security arrangements;
- evaluate the quality and consistency of provision across schools.

Computing and EdTech lead

- lead curriculum development and progression across the Trust;
- support planning, subject knowledge and pedagogical practice;
- monitor curriculum implementation, pupil learning and equity of access;
- coordinate relevant professional learning;
- review resources and emerging technologies, including AI, for educational value, safety, privacy, accessibility and sustainability;
- work with designated safeguarding, data protection and technical colleagues where responsibilities overlap.

Teachers

- teach the agreed curriculum and revisit prior learning;

- model safe, legal, responsible and critical technology use;
- select technology according to learning purpose and pupil need;
- assess learning and adapt teaching;
- report safeguarding, security, privacy or technical concerns through the appropriate Trust route.

Pupils

- participate actively and persevere when solving problems;
- use Trust technology and accounts responsibly;
- protect personal information and follow agreed safety routines;
- question digital and AI-generated content;
- seek help and report concerns;
- acknowledge sources and permitted AI support honestly.

14. Professional learning

Staff development supports secure subject knowledge and effective pedagogy in computer science, digital competence, digital literacy, online safety, accessibility, data protection, cyber security and artificial intelligence. Professional learning may include Trust-wide training, collaborative planning, coaching, peer mentoring, subject communities and appropriate external programmes.

Staff are encouraged to explore new approaches within Trust safeguards. Innovation should be purposeful, evidence informed and evaluated for impact on learning, workload, inclusion, privacy and safety.

15. Monitoring and review

The policy is implemented through the Trust computing progression, school curriculum plans and associated safeguarding and technology policies. Monitoring may include review of planning, pupil voice, learning visits, work and artefact scrutiny, teacher discussion, assessment information and checks on access and participation.

The policy will be reviewed at least every two years, or sooner where statutory guidance, curriculum requirements, Trust strategy or significant technological change makes this necessary.

16. Related Documents

Online Safety; Artificial Intelligence; Safeguarding and Child Protection; Data Protection; Acceptable Use; Cyber Security; EdTech – Teaching and Learning, SEND

Appendix A: curriculum progression strands

Detailed year-by-year knowledge and skills sit within the Trust computing progression. That progression should show coherent development from EYFS through Key Stage 2 in the following strands:

- computational thinking;
- programming;
- computer systems and networks;
- data and information;
- creating digital content;
- digital communication and collaboration;
- digital and media literacy;
- online safety;
- artificial intelligence and emerging technologies.

Appendix B: principles for selecting technology

When selecting a digital tool, service or resource, staff should consider:

- curriculum purpose and learning benefit;
- age appropriateness and cognitive demand;
- accessibility and inclusion;
- safeguarding, filtering and monitoring implications;
- privacy, data protection and account requirements;
- security and supplier assurance;
- interoperability, reliability and technical support;
- staff workload, training and long-term sustainability;
- whether an existing approved tool already meets the need.