



Cornerstone Multi Academy Trust

**Policy for the Use of Technology in
Teaching and Learning
(EdTech)**

Policy for the use of Technology in Teaching and Learning

The purpose of this policy is to layout the methods that the Cornerstone Academy Trust will use to promote outstanding use of technology in teaching across the Trust. We recognise that while each aspect of EdTech may be taught with some diversity, due to age and linked projects, each one is key to learners' development into well-rounded creative thinkers, inquisitive questioners, and avid problem solvers with flexible skills, who are successful communicators. Children learn to collaborate effectively at all levels, including working with our international partners and are able to adapt to the needs of a diverse and fast changing society. This policy sits separately to the curriculum subject policy for Computing, although there is significant overlap between the two in intention and practice. For details of how each strand of the computing curriculum is delivered through both unplugged and device-based work, the Computing Policy is needed also.

Breadth of study

Aims

- We aim for pupils to have opportunities to use technology as an integral part of their learning across the curriculum and in a wide range of contexts.
- We aim for the use of technology to have a clear impact in improving pupils' learning. Pupils should attain increasingly high levels of confidence and independence to apply and develop their use of technology as they move through school.
- We aim to provide opportunities for pupils to make regular, informed decisions about when and how to use technology and for them to have high expectations about using technology to support their learning both within and beyond school.
- Specifically, and in line with our mission statement, we aim for pupils to use technology and programming to improve significantly their creativity and their ability to investigate, solve problems, refine their work, learn from their mistakes, collaborate with others and reflect critically on their learning.
- We aim for pupils to adopt consistently safe practices in their use of technology both in school and elsewhere. They should apply their knowledge, skills and understanding to ensure safe and effective use of a wide range of digital resources and adapt these to new and emerging technologies.

Teachers planning and organisation

Teachers work in year group teams across the trust to plan and deliver lesson sequences, based on the termly curriculum document and mapped out in the year group OneNote notebook. In this way they support and develop the year group team through shared planning, shared resourcing and an ongoing professional dialogue which is expected to accompany each weeks' delivery in class. The trust seeks to ensure a mastery approach to teaching and learning is delivered, to ensure children develop a deep, secure and relational understanding of each curriculum subject. Teachers endeavour to provide plenty of time to build reasoning and problem-solving elements into the wider curriculum.

Timings

All classes utilise technology as part of their daily lessons. EdTech is also incorporated into the full range of curriculum subjects, as well as in independent practice times given either during morning/before-school work and after lunch and during independent time.

Resources

Class teachers have received CPD and appropriate training on various online tools and resource sites, which include:

- Mathletics
- Discovery Education
- Accelerated Maths
- Purple Mash
- ClickView
- Whiteboard

EYFS

EYFS planning is devised and recorded in the same way, although the ELGs are the primary objective source.

Teachers of the EYFS in the Nursery ensure the children learn through a mixture of adult-led activities; planned and resourced as N1, N2 group activities and 'next step' activities with keyworkers. Child-initiated activities are facilitated through a learning environment that ensures engagement and challenge within the continuous provision provides a rich variety of opportunities, both indoors and outdoors, to develop and apply their learning. Our focus is on providing a range of hands- on learning experiences and sensitive adult interaction to ensure progress is made.

In Reception children are taught to use technology through whole class sessions, this is then followed up with a balance of focused group work and independent activities as part of continuous provision. Our Assessment is carried out through continuous observations, pictures are taken and then recorded on evidence me which is used to track each child's progress and to plan their next steps.

Pupils in the Early Years Foundation Stage (EYFS) begin to learn how to log on and are shown what websites to use on the computer. In addition, they are introduced and encouraged to participate in programming activities where the children apply their ability to problem solve and find an outcome to the problem. Children are then able to begin to explain how to be safe online and what they should do if something happened.

Examples:

- Begin to log in using 'Windows Hello' for support
- Know and demonstrate how to be safe online
- Digital inking
- Programme basic algorithms through talk and actions
- Begin to programme basic algorithms through computer software
- Learn how to use Office 365 and other software as a resource and tool for learning

As the children move into Year 1 they continue to develop how to apply their computer knowledge in their day to day work, as a tool for learning and programming. The children experience a wider range of software in Year 1 than they do in the EYFS that the teacher models and explores in the class with the children.

Pupils have a secure understanding across the school of how to use IT to enhance their learning which is supported and modelled by members of staff. In particular, children effectively use Office 365's wide range of tools to view resources, produce their own work and then present their work.

Examples:

- OneNote
- Sway
- Forms
- PowerPoint
- Yammer
- Outlook

In addition to using Office 365's tools, both staff and children use a wide range of software to enhance learning. The software used allows staff to set assigned activities that are pitched appropriately to the child's ability.

Examples:

- Accelerated Reader/Maths

- Spellodrome/ Mathletics
- Espresso
- Purple Mash
- Literacy Planet
- LanguageNut
- ClickView

Communication and collaboration

Pupils use ICT to communicate, collaborate and share ideas, allowing them to work together in new ways with others, both in school and globally, and changing the way in which knowledge is created.

Examples:

- Make and edit TV programmes for broadcast in school and beyond
- Collaborate with overseas pupils via video conference
- Make, edit and publish videos and podcasts
- Participate with others in the development of wikis
- Create and use blogs
- Create computer-based games
- Web publishing

Exploring ideas and manipulating information

Pupils solve problems creatively by using ICT to find information, explore ideas and try alternatives. They identify patterns and test hypotheses by using ICT to research topics and model different scenarios.

Examples:

- Create spreadsheets to plan project work.
- Use and create spreadsheets to explore patterns and relationships between variables.
- Undertake web-based research of text, images and sounds and to use this to, acquire and develop knowledge, and to test hypotheses.
- Develop sequences of instructions to control artefacts or models.

Critical evaluation

Pupils review and reflect critically on what they and others produce using ICT. Older pupils learn that information should not be taken at face value, but should be analysed and evaluated to take account of its purpose, author, currency and context.

Examples

- Express views on their own work and that of others; recognise how ICT can help to improve it
- Use blogs, learning diaries, video diaries etc to reflect on their work
- Develop an appreciation of visual literacy eg in photographs, TV programmes, videos, PowerPoint screens etc.
- Learn to receive and act on constructive criticism from others
- Evaluate websites and the information contained in them

Understanding the Impact of technology

Pupils explore how ICT changes the way we live our lives and has significant social, ethical and cultural implications. They learn to recognise issues of risk, safety and responsibility surrounding the use of ICT.

Examples:

Pupils consider:

- How ICT has changed the way people find information, shop, learn, communicate with others etc.
- How ICT has changed entertainment – eg videos, music, games etc.
- How ICT has changed the world of work – eg PoS terminals, web-based marketing.
- The opportunities and risks associated with online communication and their own responsibilities in this area.
- Computer-based crime.

Programming and Computer Science


Teaching and learning programming demonstrates Cornerstone's mission statement and provides rich opportunities for pupils to be creative thinkers, inquisitive questioners and avid problem solvers. Programming encourages children to become problem solvers by explicitly asking them to create an algorithm where an outcome is evident. For them to achieve this they will use different programming language to build their algorithm, reason about why a problem might occur and work through the problem systematically in order to find a fix.

More competent members of staff support staff members in creating and delivering programming that links to projects that are being undertaken in a year group. The purposeful link to programming allows children to embed their understanding of the overarching project and to programme in context.

SEND / Able Pupils

Support for pupils with SEND will continue as mentioned above using Microsoft Teams. Where appropriate Teaching Assistants will be guided by class teacher and/or SENCO to specific children who they will call via Teams. They will provide support and guide the child through their work, offering additional practise and individualised work as they would in a classroom setting. Lessons will continue to be differentiated, separate lessons will be set up and children will be individually directed to the appropriate lesson matched to their ability, ensuring appropriate levels of challenge for the most able pupils.

Equal Opportunities

Positive attitudes towards mathematics are encouraged, so that all children, regardless of race, gender, ability or special needs, including those for whom English is an additional  language, develop an enjoyment and confidence using technology in their learning. This policy is in line with the school's 'Racial Equality' policy. The aim is to ensure that everyone makes progress and gains positively from lessons and to plan inclusive lessons. Lessons involving lots of visual, aural and kinaesthetic elements will benefit all children including those for whom English is an additional language (EAL).

Differentiated questions are used in lessons to help children and planned support from Teaching Assistants and other adults. In all lessons, learning objectives and success criteria are clearly displayed and discussed. The emphasis in lessons is to make teaching interactive and lively, to engage all children encouraging them to talk about mathematics.

Lessons involve elements of:

- Instruction – giving information and structuring it well;
- Demonstrating – showing, describing and modelling mathematics using appropriate resources and visual displays;
- Explaining and illustrating – giving accurate and well-paced explanations;
- Questioning and discussing;
- Consolidating;
- Reflecting and evaluating responses – identifying mistakes and using them as positive teaching points;
- Summarising – reviewing mathematics that has been taught enabling children to focus on next steps

Marking and Assessment

Technology is used in the marking and assessing of pupils' learning, such as use of Microsoft Teams and Assignments, FlipGrid and OneNote.

Work Safely

- know the personal risks associated with communicating via computer, mobile phone etc
- apply this knowledge to their own use of ICT
- understand their own responsibilities in communicating via ICT.

Professional Development

Staff are encouraged to explore and experiment with new hardware and software and develop their personal skills. This is furthered by peer mentoring and whole staff training, provided either internally by more competent members of staff, or by arranging external training by the software or hardware providers.

Role of the EdTech Lead

- To lead in the development of use of technology and the computing subject throughout the trust.
- To monitor the planning, teaching and learning of computing throughout the trust.
- To help raise standards in computing.
- To provide teachers with support in the teaching of computing.
- To provide staff with CPD opportunities in relation to computing within the confines of the budget and the School Improvement Plan
- To monitor and maintain high quality resources.
- To keep up to date with new developments in the area of computing.

Appendix 1: End of Key Stage Expectations

By the end of Year 6, pupils should be able to use ICT to:

Find information

- consider systematically the information they need to solve a problem, complete a task or answer a question, and explore how it will be used
- use and refine search methods to obtain information that is well matched to purpose, by selecting appropriate sources
- collect and enter quantitative and qualitative information, checking its accuracy
- analyse and evaluate information, judging its value, accuracy, plausibility and possible bias.

Develop ideas

- select and use ICT tools and techniques appropriately, safely and efficiently
- solve problems by developing, exploring and structuring information, and deriving new information for a particular purpose
- test predictions and discover patterns and relationships, exploring, evaluating and developing models by changing their rules and values
- use ICT to make things happen by planning, testing and modifying a sequence of instructions
- bring together, draft and refine information, including through the combination of text, sound and image.

Programming

- programme in 2 languages (block, java script and python)