

Graiseley Primary School



Computing Policy

Date: September 2025

Vision

At Graiseley Primary School, we strongly believe that the knowledge and skills acquired through computing are essential to supporting our broader school vision and goals: preparing students to become 'Modern-Day Citizens.' Our specific vision for computing is to ensure that every pupil builds a solid foundation of knowledge and skills needed not only for secondary education and further studies Post 16 but also for their future lives. This foundation equips them to thrive in an increasingly dynamic and technology-driven world.

Rationale

This policy is developed in accordance with the National Curriculum Computing Programme of Study, as well as the Early Years Foundation Stage (EYFS) Early Learning Goals (ELG). It aims to create consistency in computing across the school by outlining our intended curriculum, along with how teachers will implement this curriculum, consisting of key research-informed assessment practices and pedagogical choices. This policy should be read in conjunction with the Computing scheme of work (Teach Computing), which sets out details of the content that children will be taught.

Aims

The school's aims are to:

- Meet the requirements of the National Curriculum programmes of study for computing.
- Provide a relevant, challenging and enjoyable curriculum for computing for all pupils.
- Use ICT and computing as a tool to enhance learning throughout the curriculum.
- To respond to new developments in technology.
- To equip pupils with the confidence and capability to use ICT and computing throughout their later life.
- To develop the understanding of how to use ICT and computing safely and responsibly.

The National Curriculum for computing aims to ensure that all pupils:

- Can understand and apply the fundamental principles of computer science, including logic, algorithms, data representation, and communication.
- Can analyse problems in computational terms and have repeated practical experience of writing computer programs to solve such problems.
- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- Are responsible, competent, confident and creative users of information and communication technology.

Intent

The computing curriculum aims to enable all children to:

- develop pupils' understanding of the capabilities of technology and the opportunities it offers to create, manage, organise and collaborate;

- develop children's computational thinking (logic, algorithms, decomposition, pattern seeking, abstraction and evaluation), ensuring they can analyse a variety of problems by applying these principles;
- understand how to stay safe online and be a responsible, digital citizen; and
- leave Graiseley Primary School 'digitally literate', equipped with the knowledge and skills to use information and communication technology competently, creatively and confidently.

Implementation

To ensure that we achieve our intent, at Graiseley Primary School we teach the computing curriculum by following the NCCE Teach Computing Scheme. By following this scheme of work, we ensure that all children receive full coverage of the curriculum in a progressive way that builds on their knowledge and skills as they progress through school.

All year groups teach six modules per year, with six lessons in each module that cover a wide range of technologies and skills. Children will have the opportunity to access various practical activities along with written work depending on the module and what the learning goals are.

Teachers will ask engaging questions and encourage children to ask questions based on their learning to further develop their skills, knowledge and understanding.

Assessment for learning will take place during lessons and at the end of modules to ensure that misconceptions are addressed and so that the children make good progress in their computing lessons.

Computing also covers online safety which is taught to the pupils regularly through Project Evolve to ensure they know how to use digital technology safely and responsibly at school and at home. Project Evolve cover all eight aspects of online safety: Self-image and Identity, Online Relationships, Online Reputation, Online Bullying, Managing Online Information, Privacy and Security, Copyright and Ownership and Health, Well-being and Lifestyle.

Our main aims for implementation are as follows:

- To meet the requirements of the new national curriculum programmes of study for computing.
- To enable children to become autonomous, independent users of digital technology, gaining confidence and enjoyment from their activities.
- To use computing as a tool to support teaching and learning across all areas of the curriculum, creating cross curricular links where possible.
- To provide children with opportunities to develop their computing capabilities in all areas specified by the Curriculum.
- To ensure children have a sound understanding of the importance of online safety.
- To have a whole school approach to computing which ensures continuity and progression for all pupils.

Objectives

Early Years

It is important in the Foundation Stage to give children a broad, play-based experience of Computing in a range of contexts, including outdoor play. Computing is not just about computers. Early years learning environments should feature Computing scenarios based on experience in the real world, such as role play. Children gain confidence, control and language skills through opportunities to explore using non-computer-based resources such as metal detectors, controllable traffic lights and walkie-talkie sets. Recording devices can support children to develop their communication skills. This is particularly useful with children who have English as an additional language.

By the end of key stage 1 pupils should 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.

By the end of key stage 2 pupils should be taught to:

- Design and write 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; generate appropriate inputs and predicted outputs to test programs
- Use logical reasoning to explain how a simple algorithm works 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
- Describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Implementation - Assessment

Assessments are used to inform teaching in a continuous cycle of planning. Informal assessments are made throughout each lesson to check pupils' understanding through assessment for learning (AfL) strategies including quizzing, exit tickets, hinge questions and

observations. This information is then used to adjust future teaching and learning where necessary to ensure that children make expected progress.

EYFS assessments are made through adult-led discussions, observations and interactions against our curriculum ready to meet the end of year ELGs. In year 1-6, teachers provide a summative assessment judgement at the end of the year as to whether children are working towards or at age-related expectations for computing, informed by assessment guidance on Kapow.

Special Educational Needs (SEN)/Adaptive Teaching

Computing is taught to all children, regardless of SEN. Computing forms part of the school curriculum policy to provide a broad and balanced education for all children. We adapt learning opportunities to ensure that all children, including those with SEN, can access learning in computing and/or are provided with learning opportunities that match their needs where severe learning difficulties mean that they would struggle to access the same objectives as their peers as per provision maps.

Impact

Impact is monitoring through a triangulation process, where at least two (or more) of the following may be used:

1. 'book looks' are conducted with children (and teachers where possible);
2. child interviews are conducted to understand what knowledge has been retained and attitudes towards science;
3. learning walks are conducted by the subject leader and/or SLT with specific foci in mind that has been shared with staff; and
4. data/trend analysis of end of year teacher assessment data is carried out by the subject leader. We will know that provision in computing is effective if:
 - I. Children can talk about how computing is used in the real world, including modern updates in the field, such as the prevalence of AI.
 - II. Children can demonstrate computing knowledge and skills by creating digital artefacts for different purposes.
 - III. Some children may aspire to work in computing-related jobs, such as programming and software development.
 - IV. Children have positive experiences of learning in computing.
 - V. Children can talk confidently about the importance of online safety and demonstrate how they can be a responsibly digital citizen.

Resources

Each teacher and most support staff have a staff laptop to plan and teach. We have a trolley of 30 iPads in Key Stage One and two trolleys of 15 iPads in Key Stage Two. Year 5 and Year 6 have access to Chromebooks. These are timetabled for use by all children. Computers around the school are networked and have Internet access. We keep resources for ICT and computing, including software, in a central store. Interactive Whiteboards are available in each classroom and available for all children to access daily. The Chromebook and iPad trolleys are available for use throughout the school day as part of computing lessons as well as for cross-curricular use.

Online resources for home use

In recent years there has been a boom in the education opportunities that are available online. We have bought into the following to give pupils safe access to online education opportunities outside of school.

These are:

- Times Tables Rockstars
- Oxford Owl
- My Maths

Pupils have passwords that can be used to access these sites. Pupils have been shown how to use them and how to keep their passwords safe from others.

When planning work in computing, we consider any targets which are evident on a class's provision map.

Teachers identify children who are gifted and talented in the area of computing. It is the teacher's responsibility to ensure that these children are suitably challenged in their use of ICT and computing both in specific computing lessons and in using ICT in other curriculum areas. Opportunities are identified for these children to actively participate in more challenging aspects of computing.

Date: Created September 2025

Review: September 2026