Graiseley Primary School

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Computing Policy

Date: July 2023

<u>Introduction</u>

The use of information and communication technology is an integral part of the National Curriculum and is a key skill for everyday life. Computers, tablets, programmable robots, digital and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. At Graiseley Primary School, we recognise that pupils are entitled to quality hardware and software and a structured and progressive approach to the learning of the skills needed to enable them to use it effectively. The purpose of this policy is to state how the school intends to make this provision.

<u>Aims</u>

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.

<u>Objectives</u>

<u>Early Years</u>

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.

Resources

Each teacher and most support staff have a staff laptop to plan and teach. We have a trolley of 30 iPads for the whole school. 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 laptop 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
- Google Classroom

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.

Computing Technicians

The school receives technical support from eServices (Wolverhampton City Council) and the technician is responsible for the maintenance of computers, printers, the school network and keeping software up to date. The subject leader liaises with the technician to ensure that the systems are running efficiently. eService provide technical support to staff who can use the eServices support desk if they encounter software/hardware issues.

Planning

Modules are planned in line with the National Curriculum. Medium term plans are designed to enable pupils to achieve stated objectives, allowing for clear progression as they move up the school.

Assessment and record keeping

"We assess the children's work in computing by making informal judgements as we observe and talk to the children during lessons. Once the children complete a unit of work, we make a summary judgement of the work for each pupil as to whether they have yet to obtain, obtained or exceeded the expectations of the unit. On completion of each unit of work, an example of the integrated task for each ability group is placed in the Portfolio of Children's Work for which the computing subject leader is responsible. This demonstrates the expected level of achievement in computing for each age group in the school."

The monitoring of the standards of the children's work and of the quality of teaching in computing is the responsibility of the computing subject leader. The computing subject leader is also responsible for supporting colleagues in the teaching of computing, for keeping informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school. At the end of each unit of work, teachers are responsible for placing children's work into a Computing Work folder (electronic). This enables the computing subject leader to monitor the quality of work produced by all children. The computing subject leader has specially allocated time for carrying out the vital task of reviewing samples of the children's work and for visiting classes to observe the teaching of computing.

Inclusive teaching of ICT

At Graiseley Primary School, we teach computing to all children, whatever their ability, age, gender or race. Computing forms part of our school curriculum policy to provide a broad and balanced education for all children.

We provide learning opportunities that are matched to the specific needs of children with learning difficulties. In some instances, the use of ICT has a considerable impact on the quality of work that children produce; it increases their confidence and motivation and allows access to parts of the curriculum to which the children would otherwise not have had. 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.

Roles and Responsibilities

Leader for Computing

The subject leader is responsible for providing professional leadership and management of computing within the school. They will monitor standards to ensure high quality teaching, effective use of resources and improved standards of learning and achievement. This will include observation of lessons and scrutiny of the pupils' work. They will collect, analyse and distribute, where applicable, information relating to the subject to the relevant people.

Class Teachers

It is the responsibility of each class teacher to ensure that their class is taught all elements of the computing curriculum as set out in the National Curriculum programme of study. All staff It is the responsibility of all staff to make themselves aware of legislation relating to the use of ICT and computing, including copyright and data protection issues **(see e-safety policy and acceptable use policy).**

Training

All staff, including managerial and administrative staff, receives support from the subject leader or technicians and, where necessary, external training in hardware or software which they are expected to use to carry out their role.

Health and safety

The school is aware of the health and safety issues involved in children's use of ICT and computing. Electrical inspection is carried out in school by Quartzelec (in conjunction with the local authority). Portable electrical equipment in school is tested by the Veriserv (in conjunction with the local authority) every twelve months. It is advised that staff should not bring their own electrical equipment in to school but if this is necessary, then the equipment must be PAT tested before being used in school. This also applies to any equipment brought into school by, for example, people running workshops, activities, etc. and it is the responsibility of the member of staff organising the workshop, etc. to advise those people. All staff should visually check electrical equipment before they use it and take any damaged equipment out of use. Damaged equipment should then be reported to the computing technicians.

- children should not put plugs into sockets or switch the sockets on.
- trailing leads should be made safe behind the equipment
- liquids must not be taken near the computers
- safety guidelines in relation to IWBs will be displayed in the classrooms
- e-safety guidelines will be set out in the e-safety policy & AUP

Both staff and children are to sign their respective acceptable use policies each year and keep up to date with any updates or changes to the policy.

Parental involvement

Parents are encouraged to support the implementation of computing where possible by encouraging use of computing skills at home during home-learning tasks and through the school website. They will be made aware of e-safety and encouraged to promote this at home.