

Grangefield School Computing Policy

Introduction

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 Grangefield 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.

Aims

The school's aims are to:

- Provide a relevant, challenging and enjoyable curriculum for computing for all pupils.
- Meet the requirements of the national curriculum programmes of study for computing.
- Use computing as a tool to enhance learning throughout the curriculum.
- Respond to new developments in technology.
- Equip pupils with the confidence and capability to use computing throughout their later life.
- Enhance learning in other areas of the curriculum using computing.
- Develop the understanding of how to use 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 simple computer programs in order 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.

Objectives

By the end of Key Stage 1 pupils should be taught to:

Computer Science

- 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

Information Technology

- Use technology purposefully to create, organise, store, manipulate and retrieve digital content

Digital Literacy

- 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 context or contact on the internet or other online technologies

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

Computer Science

- 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
- 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;
- Appreciate how search results are selected and ranked

Information Technology

- Use search technologies effectively
- 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

Digital Literacy

- Understand the opportunities networks offer for communication and collaboration
- Be discerning in evaluating digital content
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify ways to report concerns about content and contact on the internet or other online technologies

Resources

We currently have a computer suite of 16 computers, 30 Chrome Books and a set of 32 LearnPads (tablet devices). These are timetabled for use by all children, dependant on class need. Each class has an allocated slot in the Computer suite, once a week. All computers around the school are networked and have Internet access. We keep resources for computing, including software, in a central store. There are Interactive Smart Boards in every classroom, plus an additional Interactive television, which is portable, and can be used for varied cross-curricular work.

ICT Technician

The school employs an ICT Technician whose specific role relates to the provision of support in ICT. This support takes a variety of forms, including:

- Dealing with technical queries relating to software and hardware;
- Carrying out rudimentary and routine maintenance and repairs of hardware in response to staff requests;
- Purchasing and updating equipment through consultation with staff and the Computing Coordinator

Planning

As the school develops its resources and expertise to deliver the computing curriculum, units of work will be planned in line with the national curriculum and will allow for clear progression. Units of work will be designed to enable pupils to achieve stated objectives. Pupil progress towards these objectives will be recorded by teachers as part of their class recording system. Staff will follow medium term plans with objectives set out in the national curriculum.

Assessment and record keeping (also see assessment policy)

- Formative assessments are carried out during and following short focused tasks and activities. They provide pupils and teaching staff the opportunity to reflect on their learning in the context of the agreed success criteria. This feeds into planning for the next lesson or activity.
- Summative assessment - We assess the children's work in computing by making informal judgements as we observe the children during lessons. Once the children complete a unit of work, we make a summary judgement of the work for each pupil and use this information when reporting to parents. We use a set of 'I can' statements to decide whether children have reached the end of year expectations for their year group. These are discussed and shared with the children, as appropriate. We aim for the children to have ownership of their learning by identifying when and how they have achieved a specific statement.

Monitoring and Reviewing

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. 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 computing at Grangefield 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 computing 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. 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 computing both in specific computing lessons and in using computing in other curriculum areas. Opportunities are identified for these children to actively participate in more challenging aspects of computing.

Digital Leaders

At Grangefield School we aim to encourage children to become independent and collaborative learners, both in computing and across the curriculum. We currently have six digital leaders whose job it is, is to support and assist staff and pupils, in the area of computing. Pupils have to apply for the role and must attend an interview with the computing coordinator, and if successful, they then begin their role which involves attending meetings and leading workshops for staff, pupils and parents. The role is varied and also includes assisting the computing coordinator and computing technician in evaluating hardware and software.

Roles and Responsibilities

The computing 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 may include observation of lessons and scrutiny of pupils' work. They will collect, analyse and distribute, where applicable, information relating to the subject to the relevant members of staff.

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 and in line with our Grangefield Curriculum Coverage and Progression document.

All staff

It is the responsibility of all staff to make themselves aware of legislation relating to the use of computing, including copyright and data protection issues.

Governors

All governors recognise the importance of computing in promoting high quality teaching and learning in the school. A governor is nominated to be responsible for monitoring and evaluating the impact and value of computing on children's learning, in addition, the nominated governor is also

responsible for e-Safety and is on the school's e-Safety committee. They liaise with the computing coordinator and report back to the governing body with their findings.

Training

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

Security (see also e-Safety policy + Social Media policy)

- The computing technician will be responsible for regularly updating anti-virus software.
- Use of computing will be in line with the school's 'acceptable use policy'. All staff must sign a copy of the school's policy annually.
- Parents sign an 'Our School – e-Safety Rules' form annually which gives consent for internet access and publication of work and photographs.
- Parents will be made aware of the 'acceptable use policy' and 'Social Media policy' at school entry and will be regularly reminded of these policies throughout the year.
- All pupils and parents will be aware of the school rules for responsible use of computing and the internet, and will understand the consequence of any misuse.
- The agreed rules for safe and responsible use of computing and the internet will be displayed in all classes from Y1-6 and in the computer suite. Classes from Y2 onwards will create an e-Safety class poster annually, these will be displayed in the Computer Suite and classrooms.
- The rules of e-safety are displayed where any child can access the internet. If a child breaks these rules, they will be denied internet access for a period of time after which the situation will be reviewed.

Parental involvement

Parents are encouraged to support the implementation of computing wherever possible by encouraging use of computing skills at home during home-learning tasks and through the school website. We use Tapestry as an online learning journal in EYFS and KS1, this enables staff to communicate learning with parents and encourages effective communication and collaboration. Parents are also made aware of e-safety and encouraged to promote this at home. We hold regular e-Safety information evenings for parents to ensure they are aware of potential dangers of technology, as well as the benefits of using technology.

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