

GREAT SANKEY PRIMARY SCHOOL



Computing Policy



'Together We Learn and Grow

Computing policy

Introduction: The use of Computing is an integral part of the National Curriculum and is a key skill for everyday life. Computers, iPads, programmable robots, digital and video cameras are but a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. At GSP 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 become Computing proficient.

Aims:

- Provide a relevant, challenging and enjoyable computing curriculum 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.
- To respond to new developments in technology.
- To equip pupils with the confidence and capability to use computing throughout their later life.
- To enhance learning in other areas of the curriculum using computational skills.
- To develop an 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 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 digital devices and the Internet.

Rationale

The school believes that Computing:

- Gives pupils immediate access to a rich source of materials.
- Can present information in new ways which help pupils understand access and use it more readily.
- Can motivate and enthuse pupils.
- Can help pupils focus and concentrate.
- Offers potential for effective group working.

- Has the flexibility to meet the individual needs and abilities of each pupil.

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 in 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 particular useful with children who have English as an additional language.

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.

Key stage 2

Pupils should be taught to:

- 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; and the opportunities they offer for communication and collaboration.

- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.
- 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.
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Computing at GSP

GSP believes that Computing is an integral part of the Teaching and Learning across the entire curriculum. We are a reasonably well-resourced school with laptops, iPads, recording devices, programmable toys and interactive whiteboards available to support the delivery of high-quality computing lessons. The various hardware has the relevant software required to deliver the computing curriculum through the planned Programmes of Study. All computers are networked and linked to the Internet.

Programme of study

We are currently using an amalgamation of Knowsley City Learning Centre's scheme of work, the NCCE Tach Computing curriculum as well as units from the Micro:bit Educational Foundation to support our teaching of the Computing Curriculum; this teaches the children to use a wide range of current software and apps. We also endeavour to further hone computing skills by incorporating the use of technology across the whole curriculum.

EYFS have embedded units from Barefoot computing in to their LTP to link to other work across the curriculum. EYFS are concentrating on doing unplugged activities and the introduction of computing language and computational thinking as a stepping stone to their computing learning throughout KS1 & KS2.

Implementation

Pupils will have the opportunity to develop their Computing capability in the core and foundation subjects. For details of specific applications, see the 2016 National Curriculum for all other curriculum areas. Opportunities provided by the class teacher will enable the children to work both individually and in small groups. For all Computing lessons the teacher will ensure that interactive strategies are used; teacher modelling is used; introductions are included and plenary sessions are incorporated to meet the learning objectives. In this school, pupils will have experience with networked PCs, printers, Bee-Bots, data logging equipment, sensing equipment, calculators, digital media, Interactive Whiteboards, laptops and voting systems. They will also have experience with the Internet and a variety of software that allows teachers to provide for progression of skills, concepts and applications. As an inclusive school, Computing is made accessible to children with Special Educational Needs, by providing them with suitable software and tasks, and with extra support in the use of software.

Assessment

Children are assessed against the school's milestone indicators; these show the objectives that should be met in each unit. Staff carry out a range of formative assessments during computing lessons which enable them to gauge which pupils have met the expectations and which may require further support. Formative assessment also informs intervention and future planning. Recording evidence of computing takes place in workbooks (where appropriate) and also through the use of Twitter with the hashtag #greatsankeycomputing. Here they can upload videos, photos and examples of work that provide the evidence for staff to help assess against.

Monitoring and review

The computing coordinator provides staff with training on delivering the computing curriculum and supports staff where necessary with implementation. The computing coordinator has access to twitter feeds and can collect evidence at regular intervals and ensure effective teaching and learning is taking place. Each child will be assessed against end of year expectations, this will be logged on to a central database, and the outcomes will be monitored by computing lead and also reported to governors. Monitoring of lessons, work and pupil voice will be carried out by the coordinator and senior leaders to ensure standards and consistency of approach.

Online safety

Please see E-Safety policy which outlines in details our approach to ensuring online safety.

Review

The policy will be reviewed annually with the aim of meeting any new developments and initiatives both nationally and locally.