Greenfield Primary School

COMPUTING POLICY

Approved by Governors (date) .....

Signed on behalf of the Governing Body .....

Chair of Governors

COMPUTING POLICY

Rationale

Greenfield Primary School offers a comprehensive computing education which equips pupils to use computational thinking, creativity and the key skills to progress in a fast paced and technologically reliant world. Computing has strong links with mathematics, science, and design and technology. The core of computing comprises of computer science; in which pupils are taught the principles of information, computation; understanding how digital systems work and how to put this knowledge to use through programming. Pupils at Greenfield Primary School are able to build on this knowledge and understanding and are instilled with the capability to use information technology to create programs, systems and a range of content, seeing its use beyond where it is used in schools. They become confident using a wide range of technological devices for various purposes. Lessons also ensure that pupils become digitally literate at a level suitable for the future workplace and as active participants in a digital world. This applies to all groups of children in school, including LAC, D/SEN, Disadvantaged/Pupil Premium, G&T, EAL and other vulnerable groups including hard to reach' families.

Purpose

Through computing at Greenfield Primary School, we aim to ensure that all pupils:

- Understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- Analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- Evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- Become responsible, competent, confident and creative users of information and communication technology.

Guidelines

Each year group has a minimum of one fixed session in the computing suite per week. However, more can be booked. There is a flexible timetable for use of further equipment including: laptops, iPads and cameras. A variety of digital equipment and software will be used across the key stages to ensure pupils are competent and familiar in a variety of skills and accessing commonly used software for different purposes. Lessons will include those taught using computers and applying skills as well as 'unplugged' lessons where pupils undertake planning and evaluating. All pupils are encouraged to evaluate their own and others work and make improvements based on observations. Pupils are shown examples of technology that have already been developed on the market to cultivate ideas from and video tutorial demonstration when beginning using new software. Lessons offer differentiation in various ways; through the task set, success criteria, groupings and the overall outcome. Pupils are encouraged to work collaboratively in groups and pairs. Key skills are to be applied across the whole curriculum rather than in isolation. Lessons have

clear success criteria; when taught as a discreet computing session and when used in a cross curricular way to apply skills. Comprehensive e-Safety teaching is delivered to address a multitude of issues arising, due to an increasingly digital age and increased ease of access for pupils to technology; it is crucial that all pupils develop an awareness of their own digital footprint.

Computing in the Foundation Stage

Pupils are guided to make sense of their physical world through opportunities to explore technology.

- Children recognise that a range of technology is used in places such as homes and schools.
- They select and use technology for particular purposes.

Computing in KS1

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

Computing in KS2

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

Equipment

Greenfield Primary Schools provides portable computing equipment such as laptops, iPads, digital videos cameras, digital cameras, data loggers and Bee bots to enhance pupils' education. Digital cameras are kept in year groups. iPads and laptops are stored in locked charging storages along with additional cables and chargers. All equipment should be signed out, returned after use and placed back on charge for the next users. Any damage or issues with equipment should be noted to the computing technician as soon as possible for repair. Staff may take iPads home for professional use provided they are logged out in the school office. All equipment should be switched off at the end of the day and laptops will automatically shut down at 9pm.

All teaching staff have their own laptop for the purpose of enhancing their teaching and administrative duties. These may be used on and off site but must be made available for maintenance when requested. Further details can be found in the Authorised Acceptable Use and e-Safety policies.

Planning/ Assessment / Monitoring and review

Every year group has a computing overview which supports the curriculum map and Rising Stars scheme in terms of planning, delivery, cross-curricular links etc. Assessments are made at the end of the year by the class teacher in two areas; computer science and key skills. Judgements are made against age related expectations in computing using symphony assessment sheets and all pupils are assessed as: emerging (B), expected (S) or exceeding (S+). It is the responsibility of the lead computing teacher to gather in class data at the end of the year and work out percentages for classes and cohorts. This information should then be used to drive improvement in computing and forms the basis of the annual subject report. The computing subject leader, SLT and governors (through the learning and well-being committee) monitor standards and attainment in computing based on age expectations. The computing subject leader also supports colleagues in the learning and teaching of computing and organises staff INSET and CPD as appropriate. Parents are also updated about progress and attainment in computing at parents' evenings in the autumn and spring and in the written report at the end of the year.

Extra-curricular activities / enrichment

Each year group has a blog which celebrates pupils' successes and shares videos, photos and web links for pupils' development. The blogs also share learning with parents and the wider world and they give work a meaningful purpose. Additional blogs include sport, computing, creative arts, international and parents information. Pupils are encouraged to use their own access logins to such blogs to make meaningful contributions and respond to others. This opportunity fosters a sense of pride and ownership amongst our pupils.

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