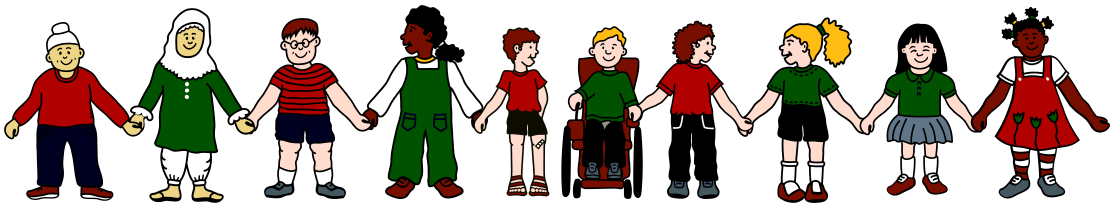
THE GILES NURSERY AND INFANTS' SCHOOL



Computing Policy

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Computing Policy
To be read in conjunction with the e-Safety policy and data protection policy

1 Aims

1.1 Computing has become part of the way we all work and entertain ourselves. Almost everything we do at school now involves the use of computing devices:

- online lesson research, teaching plans and resource materials
- lesson delivery via interactive whiteboard
- communication by email and fax
- document distribution and storage
- assessment information analysis
- production and editing of reports.

1.2 Through teaching computing we equip children to participate in a world of rapidly changing technology. We enable them to find, explore, analyse, exchange and present information. We also help them develop the necessary skills for using information in a discriminating and effective way. This is a major part of enabling children to be confident, creative and independent learners.

1.3 The objectives of teaching computing are to enable children:

- to develop computing capability in finding, selecting and using information
- to use computing for effective and appropriate communication
- to monitor and control events, both real and imaginary
- to apply their computing skills and knowledge to their learning in other areas
- to explore their attitudes towards computing and its value to them and society in general. For example, to learn about issues of security and personal safety, confidentiality and accuracy.

2 Teaching and learning style

2.1 As an objective of teaching of computing is to equip children with the technological skill to become independent learners, the teaching style that we adopt is as active and practical as possible. The children are taught discrete skills as well as learning how to use particular apps and computer software to support them in their learning.

2.2 We recognise that all classes have children with a wide range of computing abilities. This is especially true when some children have access to computing equipment at home, while others do not. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways:

- setting tasks which are open-ended and can have a variety of responses
- setting tasks of increasing difficulty (not all children complete all tasks)
- grouping children in a variety of ways and setting different tasks for each group
- providing resources of different complexity that are matched to the ability of the child

- using classroom assistants to support the work of individual children or groups of children.

3 Computing curriculum planning

3.1 The school uses the national curriculum and the Herts for Learning 'Computing Scheme' as the basis its curriculum planning in computing.

3.2 We carry out the curriculum planning in computing in three phases (long-term, medium-term and short-term). The long-term plan maps the computing topics that the children study in each term during each key stage. Our long-term computing plan shows how teaching units are distributed across the year groups, and how these fit together to ensure progression within the curriculum plan.

3.3 Our medium-term plans and topic webs give details of each unit of work for each term. We follow the Herts for Learning 'Computing Scheme'. They identify the key learning objectives for each unit of work, and stipulate the curriculum time that we devote to it. The computing subject leader is responsible for keeping and reviewing these plans.

3.4 The class teacher is responsible for writing the short-term plans with the computing component of each lesson. These daily plans list the specific learning objectives and expected outcomes for each lesson. The class teacher keeps these individual plans and they and the computing subject leader often discuss them on an informal basis.

3.5 The topics studied in computing are planned to build on prior learning. While we offer opportunities for children of all abilities to develop their skills and knowledge in each unit, we also plan progression into the scheme of work, so that the children are increasingly challenged as they move up through the school.

3.6 Parents are assured that their child's use of the internet at school is always supervised. Pupils are taught how to carry out safe searches using the search engine 'Google Kiddle'.

4 The Early Years Foundation Stage

4.1 We teach computing in Nursery and Reception classes as an integral part of the topic work covered during the year. As the Nursery and Reception classes are part of the Foundation Stage we relate the computing aspects of the children's work to the objectives set out in the EYFS which underpin the curriculum planning for children aged birth to five. The children have the opportunity to use a range of computing resources such as: the computers, laptops, iPads, a digital camera and floor robots. During the year, as the pupils gain confidence, they begin to use the iPads to take photographs. In role play areas computers and telephones are used to show computing uses in our daily lives.

5 The contribution of computing to teaching in other curriculum areas

5.1 The teaching of computing contributes to teaching and learning in all curriculum areas. It also offers ways of impacting on learning which are not possible with conventional methods. Teachers use software to present information visually, dynamically and interactively, so that children understand concepts more quickly. For example, graphics work links in closely with work in art, and work

using databases supports work in mathematics, while role-play simulations and the internet prove very useful for research in humanities subjects. Computing enables children to present their information and conclusions in the most appropriate way. Quite a lot of software is generic, and can therefore be used in several curriculum areas.

5.2 English

Computing is a major contributor to the teaching of English. Children's reading development is supported through talking stories, including 'Bug Club'. As the children develop mouse and keyboard skills, they learn how to edit and revise text on a computer. They also learn how to improve the presentation of their work. All pupils have a personal log on to the online portal 'Purple Mash' and can access a range of educational games, spellings activities and English based activities.

5.3 Mathematics

Children use computing in mathematics to collect data, make predictions, analyse results, and present information graphically. Screen robots allow pupils to give exact instructions (algorithms) for a particular route, or to use their knowledge of angles to draw a range of shapes. All pupils have a personal log on to the online portal 'Purple Mash' and can access a range of educational games and mathematics based activities.

5.4 Science

Software is used to animate and model scientific concepts, and to allow children to investigate processes which it would be impracticable to do directly in the classroom. Data loggers are used to collect information for example the temperature inside and outside the classroom.

5.5 Personal, Social, Health and Citizenship education (PSHCE)

Computing makes a contribution to the teaching of PSHCE in that children in computing classes learn to work together in a collaborative manner. They also develop a sense of global citizenship by using the internet and email (Year 2) under supervision in key stage 1. Through discussion of e-safety and other issues related to electronic communication, the children develop their own view about the use and misuse of computing devices, and they also gain an insight into the interdependence of computing users around the world. (Please refer to e-safety policy).

6 Computing and inclusion

6.1 At our school we teach computing to all children, whatever their ability and individual needs. Computing forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our computing teaching we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with special educational needs and disabilities (SEND), those with more able / most able talents, and those learning English as an additional language, and we take all reasonable steps to achieve this. For further details see separate policies: Special Educational Needs and Disability (SEND), More Able / Most Able, English as an Additional Language (EAL).

6.2 When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors – classroom organisation, teaching materials, teaching style, differentiation – so that we can take some additional or different action to enable the child to learn more effectively. For example, a lot of software can be differently configured for different ability ranges. Assessment against the national curriculum and the 'Computing Scheme' standards allows us to consider each child's attainment and progress against expected levels. This ensures that our teaching is matched to the child's needs.

6.3 Intervention through school will lead to the creation of an Individual Mapped Provision (IMP) for children with special educational needs. The IMP may include, as appropriate, specific targets relating to computing. In some instances the use of computing has a considerable impact on the quality of work that children produce, by increasing their confidence and motivation.

6.4 We enable pupils to have access to the full range of activities involved in learning computing. We have a range of software which is designed to include all learners, for example 'Clicker'. Our hardware can accept a range of input devices catering to pupils with specific difficulties.

7 Assessment for learning

7.1 Teachers will assess children's work in computing by making informal judgements during lessons. On completion of a piece of work, the teacher assesses the work, and uses this assessment to plan for future learning. Written or verbal feedback is given to the child to help guide his/her progress. Older children are encouraged to make judgements about how they can improve their own work.

7.2 The subject leader keeps samples of the children's work. This demonstrates the expected level of achievement in computing for each age group in the school.

8 Resources

8.1 Our school has the appropriate computer-to-pupil ratio, and internet access. We have Wi-Fi installed throughout the school and the children have access to the use of iPads, PCs and laptops. Most software is already installed on PCs. Some software is installed only on the class PCs.

8.2 There are 2 laptop trollies for pupil use in lessons, staff laptops- one per classroom for use with the interactive whiteboard and spare laptops for PPA time that teachers can use for planning and preparation.

8.3 In order to keep our school computers virus-free, no software from home will be installed on school computers. Where teachers are transferring files between their home and school, they must have up-to-date virus protection software on their home computers. It is asked that staff email their resources or log on to LARA to work on school files.

8.4 The school business manager holds a full computing list of all PCs and iPads with serial numbers. The school has the following:

Hardware

- network (Server), including switch, router and server PC
- network shared resources, including printers
- interactive whiteboards - one in each classroom
- cameras
- digital microscopes
- floor robots
- headphones and microphones
- iPad trollies – x3
- laptop trollies x 3
- set of computers or laptops per classroom
- data loggers
- iPods for gathering evidence in early years

Software

- A full list can be downloaded from our SITSS team.

Online material

- online content subscriptions – Bug Club, Purple Mash, Evidence Me
- school website
- school e-mail accounts and Schoolcomms

9 Monitoring and review

9.1 The monitoring of the standards of the children's work and of the quality of teaching in computing is the responsibility of the subject leader. The computing subject leader is also responsible for supporting colleagues in their teaching of computing, for keeping informed about current developments in the subject, and for providing a strategic lead and direction for computing in the school. The subject leader gives the headteacher an annual summary report in which they evaluate the strengths and weaknesses in the subject, and indicate areas for further improvement.

9.2 This policy will be reviewed at least every three years.

Date: March 2022
Next Review: March 2025