**Farnborough Road Infant School**

**Computing Policy**

‘Learning, Caring and Achieving Together’

**Aims and Objectives**

Computing is changing the lives of everyone. Through teaching computing we equip children to participate in a rapidly changing world where work and leisure activities are increasingly transformed by technology. We enable them to find, explore, analyse, exchange and present information. We also focus on developing the skills necessary for children to be able to use information in a discriminating and effective way. Computing skills are a major factor in enabling children to be confident, creative and independent learners.

The three strands of computing to be taught in the curriculum are

- Digital Literacy (this includes e-safety)
- Computer Science
- Information Technology

The aims of 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 curriculum areas.
- to use their computing skills to develop their language and communication skills.
- to explore the value of computing, both to children and to society in general.

**Teaching and learning style**

The aim of the computing curriculum is to equip children with the skills necessary to use technology to become independent learners so the teaching style that we adopt is as active and practical as possible. We teach children computing skills by directed teaching on classroom computers and in the schools computer suite. We also have 30 iPads for children to use to support teaching computing and to support teaching and learning in other subject areas.

We use a cross curricular approach to teach specific skills which also enables us to support teaching and learning throughout our topics.

We recognise that all classes have children with widely differing computing abilities. This is especially true when some children have access to computer 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, by:

- setting common tasks which are open-ended and can have a variety of responses.
- Use online materials and resources that allow children to work through levels at their own pace.
- setting tasks of increasing difficulty (not all children complete all tasks)
- grouping children of differing ability and setting different tasks for different groups.
- using classroom assistants to support the work of individual children or groups of children.

**Computing curriculum planning**

The school has adopted the new computing curriculum in 2014 as the basis for its curriculum planning. We have adapted the national scheme to enable the children to learn computing skills in a cross curricular way.
We carry out curriculum planning in computing in two phases, long-term and medium-term. The long term plan maps the computing topics that the children study in each half 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. The medium-term plans, which we have adapted from the national scheme of work, give details of each unit of work for each half term or term, depending on the topic. 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. The topics studied in computing are planned to build upon prior learning. While we offer opportunities for children of all abilities to develop their skills and knowledge in each unit, we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move up through the school.

**Foundation Stage**

We teach computing in reception classes as an integral part of the topic work covered during the year. As the nursery and reception classes are part of the early years foundation stage we relate the computing aspects of the children's work to the objectives set out in Development matters and the Early Learning Goals (ELGs) which underpin the curriculum planning for children aged three to five. The children have the opportunity to use computers, iPads, floor robots, digital cameras, digital movie creators and interactive whiteboards. As the children develop their computing skills during the year they gain confidence and start using the computer to find information and use it to communicate in a variety of ways, using a range of software and hardware. Our nursery children have access to a variety of suitable programmes on stand alone PCs to enhance early computing skills in the foundation stage. Both of the nursery classrooms provide the children with the opportunity to use an interactive whiteboard. The nursery has wifi and has access to iPads to develop skills through a variety of applications. Projectors and screens are also located in the hall and studio to enhance curriculum areas being taught in these spaces and for use in foundation stage assemblies. Reception classes have the use of an interactive whiteboard in each classroom and also have wifi access in each room for using iPads to develop skills through a variety of applications.

**The contribution of COMPUTING to teaching in other curriculum areas**

Computing contributes to the 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 the children understand concepts more quickly. For example, graphics work links closely with topic work, using data-bases supports work in science and PSED and the internet provides a very useful research tool in all subjects. Computing enables the children to present their information in the most appropriate way. Much of the software that we use is generic and can therefore be used in several curriculum areas.

**Literacy**
Computing is a major contributor to the teaching of Literacy. Through the development of keyboard skills and the use of computers, children learn to edit and revise text. They learn how to improve the presentation of their work by using desk-top publishing software. There is in addition a variety of software which targets specific reading, handwriting, grammar, spelling and phonic skills.

**Mathematics**
Children use computers in mathematics to collect data, make predictions, analyse results and present information graphically. Screen robots allow pupils to give exact instructions to draw a range of shapes. There is in addition a variety of software which targets the many different areas of numeracy.

**Science**
Software is used to animate and model specific concepts, and to allow children to investigate processes which it would be impracticable to do directly in the classroom. A variety of programmes and websites enable pupils to do this.
**COMPUTING and inclusion**

At our school, we teach computing to all children, whatever their ability. 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 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. When planning work in computing, we can take into account the targets in the children’s individual SEN plans or more specifically healthcare plans for children with additional needs and 1:1 support. The use of computing can help children in achieving their targets and progressing in their learning.

**Assessment for learning**

Teachers assess children’s work in computing by making informal judgements as they observe them during lessons. Lessons are taught to promote computing skills in a fun and interesting way. Some lessons purely focus on the teaching and development of specific computing skills using the best software to enable children to achieve and make progress. At other times a cross curricular approach is used to teach computing skills and in addition learn about topics being studied about at the time. Pupils’ progress is closely monitored by the class teacher and other adults in the class can assist the teacher with the judgements that are made. Assessment is carried out by completing the schools computing topic related assessment records. Teachers will assess the children’s computing ability to show whether they are working towards expected levels (emerging), working at expected levels (expected) or working at greater depth (exceeding) in that particular area of computing. In KS1 units are clearly divided into the different areas of computing, information technology, digital literacy and computer science. E-safety runs alongside all areas of computing and is embedded into the curriculum throughout the school year. In the foundation stage the statements are focussing on basic computing skills to enable the children to use a range of programmes independently. The Early Learning Goal at the end of the EYFS for technology is related to a childs ability with computing. Teachers will assess children at the end of the year to state whether children are emerging, expected or exceeding in this area. Children can save work into their own folders within their class folder, this allows the class teacher and subject coordinator access to children’s work for assessment purposes.

**Resources**

Our school provides children with a wide variety of technology resources. The school has internet access in all areas. All software is accessed by a curriculum server and is licensed appropriately or by internet subscribed software that is updated regularly.

Each classroom has up to 3 networked PCs for the children to use; one of these operates an interactive whiteboard. The computer suite contains 30 networked PCs and the children have access to tablet technology in the classroom by a set of 30 iPads which staff can use.

The school employs a technician to keep all the equipment in good working order. Members of staff report faults by completing an online logging system and the technician will act on this information. The technician will also set up new equipment, manage the server and install new software.

Along with the computers, the school has the following:

**Hardware**

- Interactive whiteboards and projectors
- Class set of 30 iPads for classroom use.
- Teachers have an iPad in their classroom to use each day.
- High quality networked Colour Risographs for printing.
- Networked sticker printers
- IPod touch
- Scanner (linked into riso photo-copier)
- High quality SLR camera
- DVD recorder
- Flip Video Recorders
- Programmable robots
- Listening stations

**Software**
- Word processing packages
- Painting/drawing software
- Espresso – Cross curricular topic based online learning environment
- Espresso Coding
- 2 – Simple Collection – Software specifically designed for young children
- A music composition package
- Web based software to support the curriculum

**Internet Access.**
We believe that the internet can provide our children with a wonderful learning resource; however we are also aware that we must take every precaution to ensure safe internet access for our children at all times. This is done by using the following measures:-

- All computers in the suite are connected to the internet and the children are taught to access this as appropriate, supervised by a teacher or teaching assistant at all times.
- Access will be controlled at all times using filtering software. The software for this purpose is called Smoothwall.
- Children will access websites through the school website links page.
- Staff will select sites which will support the learning outcomes planned for the children.
- Internet access will be planned to enrich and extend learning activities.
- Children will be taught to send and receive emails through specialist infant software (2simple E-mail) which does not use the internet.
- Children will be taught about e-safety in school continuously over their time in the school using a variety of suitable websites targeting e-safety with infant age children
- The children are taught the FRIS E-safety rules and posters of these are displayed around the school.

**Internet Acceptable Use and E-Safety**
At Farnborough Road Infant School we ensure all users have safe access and use the internet for educational purposes to enhance the curriculum and provide a mechanism by which staff and pupils are protected from sites, information and individuals that would undermine these principles and aims of the school. Also refer to the Internet Acceptable Use Policy.

**Monitoring and review**

The monitoring of the standards of the children’s work and of the quality of the teaching in computing is the responsibility of the computing subject leader and the Leadership team. The computing subject leader is also responsible for supporting colleagues in the teaching of computing, for keeping them informed about current developments in the subject and for providing a strategic lead and direction for the subject within the school. The computing subject leader will regularly discuss computing provision with the Headteacher and provide an annual action plan to indicate areas for further monitoring or improvement.

This policy will be reviewed regularly.

Updated June 2018.

Signed Date Headteacher.

Signed Date Chair of Governors.