# Flakefleet Primary School

# Computing Policy

## Introduction

In 2014 the national curriculum introduced a new subject, Computing, which replaced ICT. A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

## Policy Aims

At Flakefleet Primary School we aim 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.

## Computing Objectives

*Foundation Stage*

Computing is taught in Foundation Stage as an integral part of the topic work covered during the year. The children use iPods to take photographs and read QR codes, which provide links to websites and interactive games. This Computing element of the children's work is related to the objectives set out in the Early Year's Foundation Stage curriculum (EYFS), which underpin the curriculum planning for children aged three to five. Computing makes a significant contribution to the EYFS objectives of developing experiences. These can be indoors, outdoors and through role-play, in both child initiated and teacher directed time.

*Key Stage 1*

By the end of 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 material on the internet or other online technologies.

*Key Stage 2*

By the end of 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 worldwide 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.

Resources

The school contains a mixture of windows and iOS devices, which are maintained by a full time on site computer technician from GB3. The computer technician provides support and help with any local network issues, as well as managing updates on the 415 iPads in the school. In addition there are 117 iMacs distributed around the school, in locations such as the classrooms, music room, art room and media suite. The iPads are distributed between the classes, whereby each child in year 2 to year 6 has their very own iPad. One of the many benefits of each child having their own iPad, is that their work is stored locally on their device. These class iPads are stored locally in each classroom, and charged in an Ergotron charging station. Additionally, there are several other technological devices located in the school including a radio station, bee bots, digital projectors, interactive whiteboards, printers, scanners and photocopiers.

Planning and Assessment

As the school develops its resources and expertise to deliver the new Computing curriculum, modules will be planned in line with the national curriculum and will allow for clear progression. Currently the school is using several different methods of delivering the curriculum objectives. The school employs a variety of online learning environments, such as DB primary and Discovery Education Espresso, to enable pupils to progress towards stated objectives. Pupil progress towards these objectives is recorded by teachers as part of their class recording system. Data from such objectives can be gathered through the assessment features of the online learning environments, or by

marking the work directly, using the Showbie app. In Foundation Stage observational assessments are made using iPods and recorded in the 2Build a profile app.

Cross Curricular

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, whilst 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. Much of the software we use is generic and can therefore be used in several curriculum areas.

SEN

Flakefleet provides 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. Indeed one such programme, IDL, provides a unique, specialist dyslexia intervention programme, which is highly effective for improving reading and spelling.

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 gives the head teacher an annual summary report in which s/he evaluates the strengths and

weaknesses in the subject and indicates areas for further improvement. 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.

Roles and Responsibilities

*Leader for Computing*The 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 will include observation of lessons and scrutiny of the pupils' work. They will collect, analyse and distribute, where applicable, information relating to the subject to the relevant people.*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. It is also the responsibility of the class teacher to keep their computing resources charged and fully functional for use in class. Should any problems with functionality of hardware or software arise, the technician should be informed.*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. They should be prepared to sign an acceptable user policy with regard to their use of computing, particularly the internet, whilst on the school premises.

*Digital Leaders*

In each class there are two Digital Leaders, who assist the classroom teachers in the management of the technologies. These Digital Leaders are chosen at the start of the year based on aptitude and responsibility by the class teacher.

Staff Development and Training

As the Computing curriculum is developing and changing as a result of new technologies, it is important that the staff are kept up to date with any developments, which might impact on the delivery of the curriculum. Therefore, the following needs will be met:

Auditing staff skills and confidence in the use of Computing technologies regularly.

Arranging training for individuals as required.

The Computing Co-ordinator should attend courses and support and train staff as far as possible.

Annual e-safety training must be arranged and completed by all staff working with children.

All staff must be trained on professional conduct and safer working practices regarding technologies such as Twitter, Facebook, Blogging etc.

Further reference see:

E-safety Policy

Safeguarding Policy

Acceptable Use Policy

Social Networking Policy

Teaching and Learning Policy