



# Fritchley CE (Aided) Primary School

## Computing Policy

### Computing Vision

At Fritchley Primary and Nursery School we value the contribution that Computing can make for the benefit of all pupils, staff, parents and governors. We strive to provide safe Computing opportunities in all subjects to motivate and inspire pupils and raise standards across the curriculum. Everyone in our school community will become lifelong learners equipped to meet developing technology with confidence, enthusiasm and the skills that will prepare them for a future in an ever-changing world.

### The Nature of Computing

The National Curriculum 2014 presents the subject as one lens through which pupils can understand the world. There is a focus on computational thinking and creativity, as well as opportunities for creative work in programming and digital media. The three aspects of the computing curriculum are computer science (CS), information technology (IT) and digital literacy (DL). 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.

### Aims

It is the aim of Fritchley Primary and Nursery School

- To provide all pupils with their National Curriculum entitlement.
- To develop children's individual computing capability to the best of their ability both in skills and understanding, as well as knowledge.
- To ensure children's computing experiences are progressive, coherent and relevant as they move through our school.
- To apply their computing skills and knowledge to their learning in other areas.
- To allow all staff and children to gain confidence in, and enjoyment from, the use of technology.
- To explore their attitudes towards computing and its value to them and society in general. For example, to learn about issues of security, confidentiality and accuracy.
- To stimulate interest in new technologies.
- To encourage pupils to contribute to and enhance their school work and homework.
- To use computing to keep parents informed of all aspects of school life.
- To support staff so that they are able to adapt to the continually changing challenges presented by Computing and in so doing ensure that our pupils receive a Computing education in line with their ability, access and needs.

### Teaching and Learning Style

As the aims of Computing are to equip children with the skills necessary to use technology to become independent learners, the teaching style that we adopt is as active and as practical as possible. We teach a balanced curriculum involving 'skills' lessons, based on the Switched on Computing units by Rising Stars, and using children's Computing capabilities to support teaching across the curriculum.

Teachers plan units of work which are based on Switched on Computing units by Rising Stars. The teachers adapt the units to suit the needs of the children or curriculum links. For example, children might research a History topic or investigate a particular issue on the internet. In Science children might use the computer to model a problem or collate evidence through digital imagery. We encourage the children to explore ways in which the use of Computing can improve their results, for example, how a piece of writing can be edited or how the presentation of a piece of work can be improved by moving text about etc.

We recognise that all classes have children with widely differing abilities. This is especially true when some children have access to computers 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.

The teaching of Computing is taught everyday through cross-curricular subject links. Pupils in Year 1 to Year 6 are timetabled for at least one session per week to the Computing suite. Classes may visit the Computing suite for additional sessions during the week to carry out Computing-based work in other subject areas.

Interactive whiteboards are also used in group activities by teachers or TAs or for collaborative activities by pupils. Whiteboards are also regularly used by pupils themselves to participate in the class or group lesson, or demonstrate what they have learned or to display work they have done.

The intention to use such resources appears in all teachers' daily and topic planning, and is marked clearly. Subject leaders ensure that Computing is used appropriately and throughout the teaching of their subject areas, monitoring of this takes place regularly through informal discussion and sharing of ideas.

### Curriculum

Computing is taught in the EYFS as an integral part of the curriculum covered throughout the year. The children have the opportunity to use the class computer, a digital camera, a floor robot, CD player and numerous interactive programmes with the interactive whiteboard. Computing learning is planned and assessed using Development Matters and the EYFS profile. During the Foundation Stage, they gain confidence to develop their ability to use the computer to find activities of their own choice.

#### **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 a sequence of instructions
- write and test simple programs
- use logical reasoning to predict and computing the behaviour of simple programs
- organise, store, manipulate and retrieve data in a range of digital formats
- Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

#### **By the end of Key Stage 2 pupils should be taught to:**

- design and write 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; generate appropriate inputs and predicted outputs to test programs
- use logical reasoning to explain how a simple algorithm works 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
- describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

## Role of Computing Coordinator

There is a computing coordinator who is responsible for producing a computing development plan and for the implementation of the computing policy across the school.

- To offer help and support to all members of staff (including teaching assistants) in their teaching, planning and assessment of computing.
- To maintain resources and advise staff on the use of materials, equipment and books.
- To monitor classroom teaching or planning following the schools rolling programme of monitoring.
- To monitor the children's computing work, looking at samples of different abilities.
- To lead staff training on new initiatives.
- To attend appropriate in-service training and keep staff up to date with relevant information and developments.
- To keep parents and governors informed on the implementation of computing in the school.

## Inclusion

Pupils with special educational needs are encouraged to use the technology available in school to support their independence and develop their interests and abilities. All pupils have access to the use of Computing regardless of gender, race, cultural background or any physical or sensory disability. Pupils with learning difficulties can be given greater access to the whole curriculum through the use of computer technology.

## Online Safety

- All members of staff have signed a Staff Acceptable Use Policy.
- All members of staff have read the online safety policy.
- Parent/carers, pupils and any other person dealing with children and technology should be aware of and have signed the school's Children's Acceptable Use Policy.
- All children are reminded of staying safe at the beginning of every lesson and a lesson a term is dedicated to reminding the children how important it is to stay safe online.
- Children in Key Stage Two also complete the Google Be Internet Legends scheme of work which covers the key areas of: Think Before You Share, Check it's For Real, Protect Your Stuff, Respect Each Other and When in Doubt, Discuss.

## Resources

The school has a computer suite equipped with 12 computers and 3 laptops. In addition to this there are 8 iPads available for group use. All devices have internet access. Each classroom has a minimum of 1 desktop computer, 1 iPad and an Interactive White Board. All classrooms have access to a printer. We have a DVD player, Beebots, Micro Bits, Raspberry Pis and a range of different software. Children save work to their own folder on the server. The overall maintenance of technology equipment is carried out by our technician. Within teaching areas all teachers, are responsible for ensuring that all equipment is looked after and faults reported to the technician.

## Assessment and Recording

Teachers assess children's work in Computing by making informal judgments as they observe them during lessons. Pupils' progress is monitored by the class teacher and work samples are collated by the computing coordinator.

## Monitoring and Review

The monitoring of the standards of the children's work and of the quality of teaching in Computing is the responsibility of the class teacher and Computing coordinator who reports to the Leadership Team. This is achieved

through: assessment grids, work sampling, monitoring of planning and lessons, discussion with staff and pupils and looking at Computing displays.

The Computing coordinator 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 in the school. The Computing subject leader regularly discusses the Computing situation with the Head Teacher and develops an action plan based on the strengths and weaknesses in the subject and areas for further improvement. This is shared with staff, Senior Leadership Team and Governors forming the basis for improving Computing in the school.

### Security

- The computing technician will be responsible for regularly updating anti-virus software.
- Use of technology and computing will be in line with the school's 'acceptable use policy' (AUP). All staff and volunteers must sign a copy of the schools AUP. There is also a version for the children.
- Parents will be made aware of the 'acceptable use policy' at school entry.
- All pupils and parents will be aware of the school rules for responsible use computing and the internet and will understand the consequence of any misuse.
- The agreed rules for safe and responsible use of computing and the internet will be displayed in all computing areas.
- All networked computers, including laptops, have filtered internet access.
- Nobody should attempt at any time to install any software of any kind onto the school's network or onto any workstation connected to it, including screensavers. If a member of staff wishes to have software installed the agreement of the Computing Co-ordinator or the Headteacher should be sought first, the licence checked and the relevant media handed to the Computing Coordinator to arrange for installation.

The Acceptable Use of ICT Policy and the Online Safety policies should also be read in conjunction with this policy.

Review

This Computing policy will be reviewed by the Computing curriculum leader and the senior management team.

Reviewed: 10<sup>th</sup> March 2021

By: Esther Devonport

Ratified by Full Governing Body .....

Signed .....

Date .....

Date for next review of this document January 2023 unless significant changes require an earlier update.