The Federation of All Saints and St Margaret's CVA Computing Policy

Introduction

At All Saints and St Margaret's, we believe that knowing how to use computers and understanding how they work are key life skills which are necessary for the children to become digitally literate and participate fully in the modern world. We recognise that pupils are entitled to a broad and balanced computing education and we encourage staff to try and embed computing across the whole curriculum to make learning creative and accessible for all children. We follow a structured approach to teaching computing where each unit of work builds on the children's prior knowledge. Teachers adapt ideas from the Teach Computing curriculum for their lessons which cover computer science, information technology and digital literacy. The Teach Computing scheme has been developed by the National Centre for Computing Education which has an excellent reputation for providing computing resources for schools. We cover a range of computing areas: computer systems and networks; creating media; data and information; and programming.

Aims

The school's aims are to:

- Provide a broad, balanced, challenging and enjoyable curriculum for all pupils.
- Develop pupil's computational thinking skills that will benefit them throughout their lives.
- Meet the requirements of the National Curriculum programmes of study for computing at Key Stage 1 and 2.
- To respond to new developments in technology.
- To equip pupils with the confidence and skills to use digital tools and technologies throughout their lives.
- To enhance and enrich learning in other areas of the curriculum using IT and computing.
- To develop the understanding of how to use computers and digital tools safely and responsibly.

The National Curriculum for Computing aims to ensure that all pupils:

- can understand and apply the fundamental principles of computer science including logic, algorithms, data representation, and communication
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- are responsible, competent, confident and creative users of information and communication technology.

Rationale

The school believes that IT, computer science and digital literacy:

- are essential life skills necessary to fully participate in the modern digital world.
- allows children to become creators of digital content rather than simply consumers of it. provides access to a rich and varied source of information and content.
- communicates and presents information in new ways, which helps pupils understand, access and use it more readily.
- can motivate and enthuse pupils.
- offers opportunities for communication and collaboration through group working both inside and outside of school.
- has the flexibility to meet the individual needs and abilities of each pupil.

Objectives

Early years

It is important in the foundation stage to give children a broad, play-based experience of IT and computing in a range of contexts. Early years learning environments should feature IT scenarios based on experience in the real world such as in role play. Children gain confidence, control and language skills through opportunities such as 'programming' each other using directional language to find toys/objects, creating artwork using digital drawing tools and controlling programmable toys.

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 content or contact on the internet or other online technologies.

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 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.

Resources and access

The school acknowledges the need to continually maintain, update and develop its resources to deliver the objectives of the National Curriculum. Chromebooks are located in Class 3 and these need to be charged regularly. Headphones are also available in Class 3. Each class teacher has their own iPad and there are four iPads available in the school office. Teachers are required to inform the computing subject leader of any faults as soon as they are noticed. The Trust Help Desk is available for any IT issues that can't be resolved internally. Computing equipment can be reserved on Teams.

Planning

Class teachers will be using the Teach Computing curriculum and resources to support their teaching of computing from years 1 to 6. This scheme fully meets the objectives of the National Curriculum for Computing and allows for clear progression in computing. Teachers need to make it clear in the children's learning journals when computing has been taught and refer to where the evidence of the children's work is. This could be a printed version of the children's work, a Seesaw logo if the work is saved on Seesaw or a note to say the children's work is saved on OneDrive.

Assessment

Teachers regularly assess progress through observations and making informal judgments about whether the children have achieved the intended learning outcome of each lesson. The learning objectives/skills for each lesson are listed on Insight and the class teachers will need to record the children's progress related to these skills at regular intervals throughout the academic year (each half-term). Assessing computing is an integral part of teaching and learning and is key to good practice.

Monitoring and evaluation

The subject leader is responsible for monitoring the teaching of computing in both schools. This may be through looking at evidence of computing being taught, through discussions with teachers or by interviewing pupils.

Pupils with special educational needs

We believe that all children have the right to access computing. In order to ensure that children with special educational needs achieve to the best of their ability, it may be necessary to adapt the delivery of the computing curriculum for some pupils. Through the teaching of computing we provide opportunities that enable all pupils to make progress. We do this by setting suitable challenges and responding to each child's individual needs.

The role of the Subject Leader

There is a computing subject leader who is responsible for the implementation of computing policy across the school. Their role is to:

- offer help and support to all members of staff in their teaching, planning and assessment of computing.
- provide colleagues opportunities to observe good practice in the teaching of computing.
- maintain resources and advise staff on the use of digital tools, technologies and resources available to them.
- monitor how often computing is being taught and discussing with the teachers how the curriculum is being covered
- monitor the children's progression in computing, looking at examples of work of different abilities.
- keep up-to-date with new technological developments and communicate information and development with colleagues
- lead staff training on new initiatives.
- attend appropriate training

The role of the class teacher

Individual teachers will be responsible for ensuring that their pupils are covering the computing curriculum by delivering/adapting lessons from the Teach Computing curriculum. Class teachers will need to keep a record of the children's progress on Insight (see 'Assessment' above). Teachers are also encouraged to use computers in a cross-curricular way when appropriate.

Staff training

The computing subject leader will assess staff training needs through discussions with teachers throughout the year. Teachers should notify the subject leader if there is an area of computing that they feel they would benefit from doing some training on.

Health and safety

All staff should visually check electrical equipment before they use it and take any damaged equipment out of use.

In addition:

- children should not put plugs into sockets or switch the sockets on.
- trailing leads should be made safe behind the equipment
- liquids must not be taken near the computers
- magnets must be kept away from all equipment
- e-safety guidelines will be set out in the e-safety policy