



# All Saints CE (VC) First School

## Policy on Computing

Date: January 2015

Reviewed: January 2017

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Reviewed: January 2023

To be reviewed: January 2025

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

## Introduction

The 2014 National Curriculum introduced Computing, which replaces ICT. Computing is concerned with how computers and computer systems work, and how they are designed and programmed. Pupils studying computing will gain an understanding of computational systems of all kinds, whether or not they include computers. Computational thinking provides insights into many areas of the curriculum, and influences work at the cutting edge of a wide range of disciplines.

## The Nature of Computing

The 2014 National Curriculum 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 introduction makes clear the three aspects of the computing curriculum: **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, technology - at a level suitable for the future workplace and as active participants in a digital world.

## Implementation

At All Saints First School, computing will be taught as a discrete subject, and in a cross-curricular way when the opportunity presents itself.

PCs and laptops distributed around the school will be used to help pupils access the Computing curriculum, along with a range of other resources such as programmable toys and iPads.

The Computing subject leader, Headteacher and Governors will continually monitor the resources required to deliver the Computing element of the 2014 National Curriculum.

The 2014 National Curriculum states that pupils should be taught to:

	Key Stage 1	Key Stage 2
<b>Computer Science</b>	<p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>Create and debug simple programs</p> <p>Use logical reasoning to predict the behaviour of simple programs</p>	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web</p> <p>Appreciate how [search] results are selected and ranked</p>

<b>Information Technology</b>	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Use search technologies effectively 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
<b>Digital Literacy</b>	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	Understand the opportunities [networks] offer for communication and collaboration Be discerning in evaluating digital content Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

### Early Years Foundation Stage (EYFS):

Despite computing not being explicitly mentioned within the Early Years Foundation Stage (EYFS) statutory framework, which focuses on the learning and development of children from birth to age five, there are many opportunities for young children to use technology to solve problems and produce creative outcomes. In particular, many areas of the framework provide opportunities for pupils to develop their ability to use computational thinking effectively.

Early Years learning environments should feature computing scenarios based on experience in the real world, such as in role play, including outdoor play. ICT is not just about computers. Children gain confidence, control and language skills through opportunities to ‘paint’ on the whiteboard, iPad or drive a remote-controlled toy. Recording themselves digitally can support children to develop their communication and social development. This is especially useful for children who have English as an additional language. The use of technology within the Early Years is used and observed through all areas of learning and development.

It is important in the EYFS to give children a broad, play-based experience of computing and the use of technology in a range of contexts. Alongside this, children should be taught the skills to access classroom technology independently and safely.

### Resources and access

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible pc system. This will be achieved by investing in resources that will effectively deliver the strands of the national curriculum and support the use of computing across the school. Teachers are required to inform the Computing co-ordinator of any faults as soon as they are noticed and action will be taken as soon as possible to ensure that disruption to the classroom is as minimal as possible. Resources, if not classroom based, are located in lockable trolleys that contain laptops and iPads.

A service level agreement with ICTN ensures professional technical support is available by phone or online throughout the day and technical visits six times a year to update devices where appropriate.

### Planning

As the school develops its resources and expertise to deliver the Computing curriculum, lessons will be planned in line with the national curriculum and will allow for clear progression. Lessons will be designed to enable pupils to achieve stated objectives. Pupil progress towards these objectives will be recorded by teachers as part of their class recording system. Staff will follow medium term plans which cover learning objectives, outline of activities, resources and assessment criteria. A

minority of children will have particular teaching and learning requirements which go beyond the provision for that age range and if not addressed, could create barriers to learning. This could include those with SEN or those who have EAL. Teachers must take account of these requirements and plan, where necessary, to support individuals or groups of pupils to enable them to participate effectively in the curriculum and assessment activities. During any teaching activities teachers should bear in mind that special arrangements could be made available to support individual pupils. These children should be identified and discussed at pupil progress meetings to ensure appropriate provisions or interventions are put into place.

## **Assessment**

Assessment of children's work in Computing is ongoing. Achievement is reported to parents at the end of each academic year.

Children's work is saved onto each teachers secure USB for reference throughout the year or printed for display purposes. Cross curricular work can be seen in each class's floor book.

## **Roles and responsibilities**

**The Computing co-ordinator** should:

- Write and update on a regular basis the school's Computing Policy to cover new initiatives
- Encourage subject coordinators to ensure that Computing is written into their subject schemes of work and that they understand their role in determining useful Computing resources/web sites across the curriculum. Again, this information will be linked to planning and assessment
- Ensure that Computing enhances the curriculum process and that teachers and children use the internet safely
- Monitor Policy Central software reports and the e-Safety within the school
- Monitor the use of Computing as an educational process throughout the school, in particular the teaching of Computing
- Work closely with the governor with responsibility for Computing
- Monitor the progression of basic Computing skills by children throughout the school
- Manage all hardware/software resources
- Work with the community to ensure higher standards of access for all connected with the school, in whatever capacity
- Keep up to date with the latest Computing developments and work with colleagues in the schools network
- Manage technicians to support hardware and software development within the school
- Support staff in raising standards of Computing capability for all children irrespective of background and ability
- Using Computing to improve home/school/community communication
- Motivating staff to understand and make the best use of Computing in their teaching to stimulate children's learning
- Ensure that children with specific IT needs (ie those with no home access to a computer or whose home access is limited for whatever reason) are not disadvantaged

**Subject Co-ordinators** should:

- Ensure that Computing is incorporated into their schemes of work
- Ensure that subject specific Computing resources are budgeted for
- Find suitable Computing resources for their subject (suitable websites, software)

**Class Teachers** should:

- plan appropriate Computing activities and assist the co-ordinator in the monitoring of pupil progress in Computing
- use Computing effectively in order to plan and prepare engaging, fast moving, motivating lessons for pupils
- supervise children when they are accessing information from the Internet or appoint an appropriate adult to supervise this activity in their classroom.

- Check all content on websites that they recommend to the children or use to support their lessons. Our service provider does filter information but staff are responsible for the information accessed by pupils.

#### **Link Governors should:**

- Meet with the computing co-ordinator at least twice a year to monitor the delivery and co-ordination of the subject and to set priorities for budgets and future development of the schools resources.

#### **Staff training**

The computing co-ordinator will assess and address staff training needs as part of the annual development plan process or in response to individual needs and requests throughout the year. Individual teachers should attempt to continually develop their own skills and knowledge, identify their own needs and notify the coordinator.

#### **Health and safety (see also Health and Safety policy)**

All fixed electrical appliances in school are PAT tested. It is advised that staff should not bring their own electrical equipment in to school but if this is necessary, then the equipment must be pat tested before being used in school. This also applies to any equipment brought in to school. All staff should visually check electrical equipment before they use it and take any damaged equipment out of use. Damaged equipment should then be reported to the Head teacher who will arrange for repair or disposal.

- 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 & Acceptable Use Policy

#### **Security**

- Use of ICT and computing will be in line with the school's Acceptable Use Policy. All staff, volunteers and children must sign a copy of the schools AUP annually.
- The Schools laptops are monitored using Policy Central software which alerts the Headteacher and Computing co-ordinator of search terms that are considered to be unacceptable. Reports are made and will be dealt with accordingly. Computers without this software should not be available for children to access independently. The Computing co-ordinator will make all staff aware of which machines this relates to.
- 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 of computing and the internet and will be made aware of the consequence of any misuse.

#### **Parental involvement**

Parents are encouraged to support the implementation of ICT and computing wherever possible by at home during home-learning tasks and through the school website. They will be made aware of e-safety and encouraged to promote this at home.

#### **Monitoring and review**

The Computing co-ordinator, Headteacher and Link Governor will monitor the implementation of this policy in line with the responsibilities detailed above. The Headteacher and Co-ordinator will observe the use of ICT during lessons as part of the school's agreed cycle of lesson observations.

This policy will be reviewed at least every two years.