

# Computing Policy

**This policy was updated:** March, 2017.

**This policy will be reviewed:** Summer Term 2018.

**Statutory Policy:** No.

## **Our School Vision**

***– Truth – Justice – Forgiveness – Generosity – Respect –***

### **Introduction**

The 2014 national curriculum introduces a new subject, computing, which replaces ICT. This represents continuity and change, challenge and opportunity. It gives schools the chance to review and enhance current approaches in order to provide an even more exciting and rigorous curriculum that addresses the challenges and opportunities offered by the technologically rich world in which we live.

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.

At St Peter and St Paul CofE Primary School, we recognise that pupils are entitled to quality hardware and software and a structured and progressive approach to the learning of the skills needed to enable them to use these effectively. The purpose of this policy is to state how the school intends to make this provision.

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

### **Aims**

- Provide a relevant, challenging and enjoyable curriculum for ICT and computing for all pupils.
- Meet the requirements of the national curriculum programs of study for computing.
- To develop the understanding of how to use ICT and computing safely and responsibly.
- Use ICT and computing as a tool to enhance learning throughout the curriculum.
- To respond to new developments in technology.
- To equip pupils with the confidence and capability to use ICT and computing throughout their later life.

### **Rational**

The school believes that ICT and computing:

- Gives pupils immediate access to a rich source of materials.
- Can present information in new ways which help pupils understand access and use it more readily.
- Can motivate and enthuse pupils.
- Can help pupils focus and concentrate.
- Offers potential for effective group working.
- Has the flexibility to meet the individual needs and abilities of each pupil.

## **Overview of the Computing National Curriculum**

### ***Early years***

It is important in the Foundation Stage to give children a broad, play-based experience of computing in a range of contexts, including outdoor play. Computing is not just about computers. Early years learning

environments will feature computing scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities to 'paint' on a device or program a toy. Recording devices will be used to support children to develop their communication skills. Understanding the World covers most aspects of the area of learning and development which was called 'Knowledge and Understanding of the World' in the original EYFS framework. Technology covers the previous aspect of 'ICT'. It helps children recognise that a range of technology is used in places such as homes and schools.

### **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 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.

### **Key Stage 2**

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.

Teaching and Coverage:

***St Peter and St Paul C of E Primary School will follow the ICT Inspires – Progression in computing scheme of work for the Teaching of Computing and E-Safety. This scheme clearly sets out the skills and content that needs to be taught in each year group, leading on to ensure that there is a clear progression in skills and provides ways to link skills across the curriculum. This is mapped across the whole school to ensure coverage and progression.***

### **Assessment**

On-going formative assessment will take place (for example by discussion with the children, marking of their work, observing the children in lessons). This is an integral part of good practice. Its main purpose is

to enable the teacher to match work to the abilities and needs of the children and ensure progression in learning.

- The children will be informed of the next steps in their learning through self-review and teacher review of their work against the learning objective and success criteria.
- Computing skills capability will be monitored regularly in relation to the Computing curriculum as outlined in the 'The National Curriculum' for England. Teachers will assess module requirements with reference to children's knowledge, understanding and skills. Other opportunities for assessment will arise from cross-curricular work.
- Samples of work will be kept on the school network within class folders.
- For the Foundation Stage, it may not always be practical to keep samples of work, but observations and discussions will be recorded through the use of Tapestry.

## **Inclusion**

At St Peter and St Paul C of E Primary School, we plan to provide for all pupils to achieve, including boys and girls, higher achieving pupils, gifted and talented pupils, those with SEN, pupils with disabilities, pupils from all social and cultural backgrounds, children who are in care and those subject to safeguarding, pupils from different ethnic groups and those from diverse linguistic backgrounds. Each child will have access to appropriate computing activities and computing equipment that will allow them to develop in their learning.

## **Resources and access**

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible computing system by investing in resources that will effectively deliver the strands of the national curriculum and support the use of computing across the school.

- Every pair of classrooms has a set of laptops (approx. 30) to share which are connected to the school network and have internet access and use of shared drive.
- Every classroom from Foundation stage to Y6 has a laptop connected to the school network and an interactive whiteboard/smart screen with sound and video facilities.
- There are 4 sets of iPads (ratio of 1:3 devices per child) assigned across the phases that are being used by class teachers to compliment learning across the curriculum. Pupils are unable to download apps themselves to the iPads (done by technician) and are used by children under adult supervision.
- The school has a range of software that is used by each year group for the teaching of computing to ensure progression in the skills taught.
- Each class from Y1 to Y6 has access to laptops throughout the week for the specific teaching of computing.
- All ICT and computing equipment (including the laptops and iPads) are available for use throughout the school day for cross curricular use.
- Pupils may use ICT and computing equipment independently (whilst supervised by an adult), in pairs, alongside a TA or in a group with a teacher.
- The school has an ICT and computing technician who is in school for 3 hours per week to resolve any computing issues and help to move the provision forward.

## **Health and safety**

The school is aware of the health and safety issues involved in children's use of ICT and computing.

- Children will be taught how to safely handle technical equipment.

- Children should not bring their own electrical equipment into school (unless a phone which is submitted to the office at the start of day.
- All electrical appliances in school are tested annually.
- 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.
- All staff will visually check electrical equipment before they use it and remove and report any damaged items.
- There is a separate policy on the safe use of the internet; see **E Safety Policy** and staff use of ICT equipment; see **Acceptable Use Policy**.