

# School Policy for Computing



## 1. Introduction

The use of information and communication technology is an integral part of the National Curriculum and is a key skill for everyday life. Computers, tablets, programmable robots, digital and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. At Uffington Church of England 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 it effectively.

This policy outlines the purpose, nature and management of Computing taught at Uffington School.

This policy reflects the consensus of opinion of the whole teaching staff and has the full agreement of the Governing Body.

The implementation of this policy is the responsibility of all teaching staff.

## 2. Entitlement

2.1. Design and Technology is an integral part of the National Curriculum.

2.2. All children are taught the skills and knowledge of Design and Technology as outlined in the programmes of study of the National Curriculum.

2.3. All areas of study are covered at least once at Key Stage 1 and at least twice at Key Stage 2.

## 3. Aims

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

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems

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- 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.

In addition, Uffington Church of England Primary School aims to:

- Meet the requirements of the National Curriculum programmes of study for computing.
- Provide a relevant, challenging and enjoyable curriculum for computing for all pupils.
- Use ICT and 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 ICT and computing throughout their later life.
- Develop the understanding of how to use ICT and computing safely and responsibly.

#### **4. Implementation**

##### **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 should feature Computing scenarios based on experience in the real world, such as role play. Children gain confidence, control and language skills through opportunities to explore using non-computer based resources such as metal detectors, controllable traffic lights and walkie-talkie sets. Recording devices can support children to develop their communication skills.

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 and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

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- 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.

## **5. Resources**

We have a range of devices to support the teaching of Computing and use of ICT in schools including laptops, desktop computers and iPads. Computers around the school are networked and have Internet access. The school also has programmable robots to support the teaching of coding.

### Online resources for home use

Children have access to a number of web-based platforms which provide safe access to online education opportunities outside of school and remote education. These are:

- Google Classroom
- Education City
- Active Learn Primary

## **6. Planning**

Units of work are planned in line with the National Curriculum. Medium term plans are designed to enable pupils to achieve stated objectives, allowing for clear progression as they move up the school.

## **7. Assessment and Recording**

The child's knowledge, skills and understanding of Computing is assessed through discussion, observation and evaluation of work. Attainment and progress in Computing is reported to parents annually as part of the Individual Report.

## **8. Monitoring and Review**

The Headteacher and staff will review this policy biennially. Any suggested amendments will be presented to the Governing Body at their first meeting following review.

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Revised Policy ratified by the Curriculum and Standards Committee	July 2021
Next review	July 2023