



Computing Policy 2023 – 2024

St. Michael in the Hamlet Primary School

The use of computers and computer systems is an integral part of the National Curriculum and knowing how they work is a key life skill. In an increasingly digital world there now exists a wealth of software, tools and technologies that can be used to communicate, collaborate, express ideas and create digital content.

At St. Michael-in-the-Hamlet C.P. school we recognise that pupils are entitled to a broad and balanced computing education with a structured, progressive, approach to learning how computer systems work, the use of information technology (IT) and the skills necessary to become digitally literate and participate fully in the modern world.

The purpose of this policy is to state how the school intends to deliver this provision.

Intent

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.
- To equip pupils with the confidence and skills to use digital tools and technologies 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 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;
 - can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems;
- Are responsible, competent, confident and creative users of ICT.

Objectives and Expectations

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, including off computer activities and outdoor play. Computing is not just about computers. 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 a sequence of instructions
- write and test simple programs

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- 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 recognize 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;
- 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.

In order to fulfil the above aims it is necessary to ensure:

- the systematic progression through key stages 1 & 2
- that all children have access to a range of ICT resources
- that cross curricular links are exploited where appropriate
- that children's experiences are monitored and evaluated
- that resources and equipment are kept up to date as much as possible
- that staff skills and knowledge are kept up to date

Implementation

Curriculum Development and Organisation

- A comprehensive progression document details a range of planning (Evolve, Twinkl etc.) in conjunction with Espresso coding is to be used to help form the medium term plan and short term plans for computing;
- iPads are available to allow for technology to be further implemented across the curriculum as opposed to simply being taught in discrete sessions.

Teaching and Learning

Teacher planning is differentiated to meet the range of needs in any class including those children who may need extra support, those who are in line with average expectations and those working above average expectations for children of their age. All teachers have been provided with key vocabulary to ensure that knowledge, skills and language can be taught progressively.

Impact

The subject lead monitors the implementation of computing across the school and works with members of staff to decide next steps for their particular class. Computing is assessed both formatively and summatively.

Formative assessment occurs on a lesson by lesson basis based on the lesson objectives using Balance and outcomes from the scheme of work. These are conducted informally

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by the class teacher and are used to inform future planning. The children's work is saved on the school network. Other work may be printed and filed within the subject from which the task was set.

Resources and Access

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards consistent, compatible computer systems by investing in resources that will effectively deliver the objectives of the National Curriculum and support the use of IT, computer science and digital literacy across the school. Computing network infrastructure and equipment has been sited so that:

- Every classroom from nursery to Y6 has a computer connected to the school network and an interactive whiteboard with sound, DVD and video facilities.
- Years 3-6 each have a set of 30 iPads to share. Nursery, EYFS and Year 1 also have access to iPads and some computers.
- There are iPad Sync & Charge cabinets in school.
- Internet access is available in all classrooms.
- Each class from YN – Y6 has an allocated slot per week for teaching computing as a discrete subject.
- Laptops and iPads are available for use throughout the school day as part of computing lessons and for cross-curricular use.
- Pupils may use IT and computing independently, in pairs, alongside a TA or in a group with a teacher.
- A governor will be invited to take a particular interest in computing in the school.

Monitoring

In monitoring the quality of computing teaching and learning the coordinator will:

- Monitor to ensure full coverage of the computing curriculum requirements;
- Analyse children's work;
- Hold discussions with teachers.

There will be an annual review of this policy by the computing coordinator.

Reviewed: Autumn 2023

Next Review: Autumn 2024

