

## Philosophy

At St Mary's First School we recognise that pupils are living in a rapidly changing world, in which computing is playing an ever increasing role. Therefore, we aim to equip children with the skills they need to adapt to new technology and to give them confidence to use information technology and computing skills to further their learning and assist them in everyday life. Building on this knowledge and understanding, pupils are equipped to use IT to create programs, systems and a range content on a variety of technologies.

Our computing curriculum also ensures that pupils become digitally literate. This means they will be able to use, and express themselves and develop their ideas IT - at a level suitable for the future workplace and as active participants in a digital world. The curriculum has been taken from The National Centre for Computing Excellence (NCCE) and is designed to incorporate the use of different technologies and software such as Microsoft Word, PowerPoint, Scratch, Paint and some online applications.

## Aims

- To ensure that all pupils are digitally literate.
- To embed computing and computational thinking as a tool to enhance learning across all areas of the curriculum.
- To ensure they know how to stay safe and responsible online
- To provide all pupils with their National Curriculum entitlement.
- To provide a relevant, challenging and enjoyable curriculum for computing for all pupils.
- To help young people acquire confidence to respond to a new range of technologies.
- To use computing to create opportunities for both collaborative and independent learning.
- To ensure children are aware that computing includes a wide range of hardware and equipment including, laptops, iPads, interactive whiteboards, floor robots, scanners, listening centres, digital cameras, video cameras, microwaves, audio search engines etc.
- To create national and international links, developing an awareness of cultural diversity.
- To equip pupils with the confidence and capability to use IT and computing throughout their later life.

## Teaching and Learning

The aims of the computing curriculum ensure that every child will have the necessary skills to understand and apply the fundamental principles of computing.

At St Mary's First School we ensure children are responsible, competent, confident and creative users of information technology. The use of information technology is an integral part of the national curriculum and is a key skill for everyday life. Laptops, iPads, floor robots, and digital cameras are a few of the technologies that can be used to acquire, organize, store, manipulate, interpret, communicate and present information. We recognize 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. All teaching ensures children have opportunities to develop computational thinking concepts, including abstraction, logical thinking, algorithms and debugging.

We recognise that all classes may have children with differing computing abilities; this is especially true when some children have access to computing equipment at home, while others do not. As a result, we provide learning opportunities for all children to use a range of technologies, and keep up to date with new software and hardware. However, in a highly digital world, most children within our school have access to a range of technologies from a young age. This developed digital literacy allows us to challenge our pupils throughout their computing learning.

### **Computing curriculum**

As a school we follow the plans adapted from the NCCE. There is a long-term overview for both KS1 and KS2 and individual lesson plans to go along with these. Our progression of skills for computing is split into 5 different categories: E-Safety, Coding, Multimedia, Technology in Our Lives and Data Handling. Computing in the EYFS is embedded in all topics. There are opportunities for assessment in every lesson, both formative and summative. All children will be expected to sign an acceptable user policy at the start of every academic year.

### **Embedding computing**

Computing contributes to teaching and learning in all curriculum areas. For example, digital painting links in closely with work in art, and work using databases and programming supports work in mathematics. While the Internet proves very useful for research in all subjects. Computing enables children to present their information and conclusions in the most appropriate way.

### **Literacy**

Through the development of keyboard skills and the use of computers, children learn how to type, edit and revise text. They learn how to improve the presentation of their work by using a wide range of software, on desktops and tablets.

### **Numeracy**

Many computing activities build upon the mathematical skills of the children. Children use computing in mathematics to collect data, make predictions, analyse results, and present information graphically. Coding activities also develop a range of mathematical skills, especially positional direction and angles.

### **PSHE**

Computing contributes to the teaching of PSHE and citizenship as children learn to work together in a collaborative manner. They develop a sense of global citizenship by using the Internet and e-mail. Through the discussion of moral issues related to electronic communication, children develop a view about the use and misuse of Computing, and they also gain a knowledge and understanding of the interdependence of people around the world. There are also links to online safety.

### **Teaching computing to children with special educational needs**

Computing is made available to all children, whatever their ability. Computing forms part of our school curriculum policy to provide a broad and balanced education for all children. We provide learning opportunities that are matched to the needs of children with SEN. In some instances, the use of computing has a considerable impact on the quality of work that children produce; it increases their confidence and motivation. When planning work in computing, we can consider the targets in the children's learning passports. The use of computing can help children in achieving their targets and progressing in their learning.

### **Parental involvement**

Parents are encouraged to support the implementation of IT and computing where possible, by encouraging use of IT and computing skills at home during home-learning tasks. They will be made aware of the importance of online-safety and encouraged to promote this at home.

### **Copyright and Licensing**

All software used on the school's system is correctly licensed. All staff are aware of the consequences of installing unlicensed software and agree to acceptable use before using the school system or school IT equipment. All pupils must agree to abide by the terms of our acceptable use agreement before using the school IT system or any school IT equipment.

### **Online-safety**

Today's children and young people are growing up in a digital world. As they grow older, it is crucial that they learn to balance the benefits offered by technology with a critical awareness of their own and other's online behavior and develop effective strategies for staying safe and making a positive contribution online. At St Mary's First School we provide children with the resilience and competence to use the internet safely and effectively. Online safety is embedded throughout computing planning and will provide children with the opportunity to learn how to be responsible users online. This will be covered across 4 key areas: pupil behaviour, parental engagement, staff awareness and curriculum development. This is included in the progression of skills from EYFS to Year 4. We use the Education for a Connected World framework published by UK Council for Child Internet Safety (UKCCIS) to help develop the skills and competences that children and young people need to have at different ages and stages in order to be able to navigate the online world safely and responsibly.

### **Guidelines**

- To ensure that planning delivers the statutory requirements of the National Curriculum to all children.
- To ensure equal access to computing for all pupils.
- To monitor and control events both real and imaginary.
- To explore their attitudes towards computing and its value to them and society in general. For example, to learn about issues of security, confidentiality and accuracy.

### **Monitoring**

Computer Lead, Senior Leadership Team and Governor's Curriculum Committee.

Reviewed by Leah Gribbon July 2023 (Computing Lead)

Agreed by all staff and Governors - July 2023

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