

## **Subject Rationale**

### **Our vision for Computing**

The staff at St Mary's aim to deliver a creative and innovative curriculum in which the three strands of computing are thoroughly taught and understood. We understand the importance of computing in everyday life and strive to ensure all children are given the opportunity to develop the skills of programming, digital literacy and information technology and apply these across a range of programs and equipment. Equally, we understand the ever changing online world, therefore, e – safety is embedded throughout the computing curriculum.

### **Content**

At St Mary's we follow the Kapow Computing scheme of work, facilitating children's learning through a range of programs and computing equipment whilst allowing children to develop computing skills independently. Using the variety of programs, allows the children to continuously build upon their knowledge and skills throughout the key stages.

**In the EYFS**, children will begin to recognise a range of technology through developing an understanding of how a simple program works and how use technology for a purpose; they will complete whole class research lessons exploring the use of a search engine.

**In Key Stage 1**, children will be introduced to the three strands of computing across the two years; information technology, computer science and digital literacy. In this key stage, children will develop the basic computing skills of logging in and out and typing, as well as, understanding algorithms and debugging using Bee Bots and Scratch Jr.

**In Lower Key Stage 2**, children will build upon their knowledge and skills gained about the three computing strands. They will be introduced to emailing, exploring databases and develop their computational thinking through a range of plugged and unplugged activities.

**In Upper Key Stage 2**, children will consolidate their knowledge and skills of the three computing strands through explaining why some websites are more reliable than others, creating their own websites and creating and using QR and RFID codes.

### **Concept**

The concept of the scheme is to embed the knowledge and skills of the three key strands of computing: information technology, computer science and digital literacy (which embeds e – safety).

### **Progression of skills and knowledge:**

The computing scheme of learning has a strong focus on developing the skills and knowledge through a range of programs and computing equipment. Through high quality teaching of the subject – children will be able to acquire extensive computing skills and be able to apply these.

### **Inclusion**

During computing lessons, children will have the opportunity to use the computers individually, in partners and in groups. Work will be differentiated by task to ensure that all pupils are able to access to broad and balanced computing curriculum.

### **Opportunities & Resources**

There are a wide range of programs and computing devices that are accessible for every unit of work at St Mary's, programs are downloaded onto the computer networks, as well as, any shortcuts to regularly used websites. All KS2 children will have email accounts - on the school network – and each KS1 class have a class email to view and share work, when appropriate. Resources will be updated regularly to keep up with the every changing technology.

### **Assessment**

Teacher judgement will be used during computing lessons to assess each child, the assessments will then form the computing summative data at the end of each term.

### **Monitoring**

Computing will be monitored by the computing subject lead who will; carry out learning walks to view computing displays in classrooms, viewing year group's folders on the shared drive, viewing computing work in topic folders. To ensure children and staff are satisfied and confident with the computing scheme the subject lead will complete a pupil voice and staff questionnaire.