



## **Computing Policy**

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.

Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world. Through the teaching and learning of Computing, we seek to develop these key characteristics of computer scientists and software developers:

- Competence in coding for a variety of practical and inventive purposes, including the application of ideas within other subjects.
- The ability to connect with others safely and respectfully, understanding the need to act within the law and with moral and ethical integrity.
- An understanding of the connected nature of devices.
- The ability to communicate ideas well by using applications and devices throughout the curriculum.
- The ability to collect, organise and manipulate data effectively.

### **Teaching and Learning for Computing**

Classes undertake a sequence of Computing lessons every half term. Teachers follow the teaching and learning policy when delivering Computing lessons. The principal aim is to develop children's knowledge, skills and understanding in the subject so that this knowledge and understanding can be applied and progressed upon as they move through year groups. During Computing lessons, there is a mixture of whole-class teaching and individual or group activities. Within lessons, children are given the opportunity both to work on their own and to collaborate with others, listening to other children's ideas and treating these with respect.

### **Computing Curriculum Planning**

The National Curriculum is used as the basis of curriculum planning. Class teachers also use the scheme Switched on Computing in order to ensure they deliver a breadth of study in the field. Further specific guidance for planning is provided by Chris Quigley Essentials to plan Computing lessons that work towards threshold concepts and their relative milestones. These concepts and milestones form the intention for the children's learning and planning is based around meeting these intentions.

These intentions are:

- To use code, developing an understanding of instructions, logic and sequences, within motion, looks or visuals, sound, drawing, events, sensors and sensing, variables and lists and operators (to perform calculations or define conditions).
- To connect with others safely using digital technology.

- To communicate using digital technology.
- To collect information using digital technology.

Computing across the school builds upon prior learning and as such intentions are repeated across year groups; however, a progression is found within the milestones we wish for the children to achieve across each year group. This progression can be found within the long term Computing plan within the Chris Quigley Essentials scheme.

### **Computing in EYFS**

Teaching and learning within Computing for pupils in the EYFS is delivered and monitored via the 'Understanding the World' strand of the curriculum. This is delivered through a range of topics that let them explore their immediate environment and the wider world. The focus for Computing within this strand is concentrated in the Early Learning Goal of 'Technology' in which children recognise that a range of technology is used in places such as homes and schools and they are able to select and use technology for particular purposes.

### **Assessment Practice for Computing**

We use general assessment practices in this subject as outlined at the start of Teaching and Learning Policy under the heading 'Meeting children's learning needs through assessment practice'. Children's progress is recorded in their individual Learning Logs.