

## Why we teach Computing at Coton Green Primary School

### Intent:

The aim of our computing curriculum is to raise aspirations of all groups of children, including those who are seen as disadvantaged, to allow them to be digitally literate in an evolving world where they will need to be digitally competent for jobs of the future. We believe that computing is an essential part of the curriculum at Coton Green; it is a subject that not only stands alone but is woven through, and should be an integral part of, all learning. As well as the benefits of technology, we are also aware of the risks and this is why we prepare our children to stay safe online through our e-safety lessons and safer internet days.

At Coton Green Primary School, we believe that computing skills and an understanding of technology play a key part in helping our children to fulfil their potential and achieve their goals. We provide children with a variety of computing and technological experiences across a range of media. Our aim is to equip children with the knowledge and confidence to succeed in a busy multi-media society.

From the moment children enter Coton Green, technology and computing play an important part in their education. From watching teachers use a range of devices, to creating their own work on a computer and iPad, children have the opportunity to experience a wide range of technology. Our aim is to begin a lifelong relationship with technology and develop children's digital confidence.

### Implementation:

At Coton Green, children are taught computing in a discreet session on a weekly basis where they have access to either a laptop or iPad. From February 2023, every child in Year 1 to Year 6 will be loaned an iPad.

Lessons are delivered using Powerpoints, which signpost the children through the lesson and help to explain technical vocabulary which is used the lessons. The children then use the applications to enhance their learning. We use the computing scheme of work created on the 'Purple Mash' website which covers all aspects expected to be taught in the Computing National Curriculum. Technology is used throughout the curriculum including Maths 'TT Rockstars', Reading 'Reading Plus' and PSHE 'Internet Legends with google.com'.

### Key features of our curriculum:

The skill areas involved in the computing curriculum clearly follow the areas of skills set out in the Computing National Curriculum to encourage children to use computational thinking and to be creative to understand and change the world.

The skill areas that children develop across computing are:

1. Programming - skill based and focuses explicitly on coding and programming
2. Online Safety - consistent and progressive online safety message

3. Digital Literacy - provide children with a wide variety of multi-media knowledge and opportunities.

These skills will be developed during children's computing learning journey at Coton Green.

On-line Safety:

Online safety is at the heart of our computing curriculum. We believe that it is essential for children to have the knowledge and confidence to use technology safely and know what to do if they do not feel safe online. Every year, each child will complete an e-safety module to ensure their knowledge is up-to-date.

Teaching Principles:

Cognitive science is of fundamental importance in our teaching of computing. Lessons are designed and sequenced based on research into the working memory and long-term memory, considering how learning can be constructed to maximise the information retained by children. These principles underpin the Long and Medium Term Planning of computing. By carefully considering the development of schemata, the children will come across a variety of devices including laptops and iPads and a variety of programs. Through retrieval practice, children will embed knowledge of the different skills. Lessons are planned so that the cognitive demand is suitable for all learners meaning that new knowledge is learnt through smaller, manageable steps. Verbal feedback is a key component of the teaching of computing.

**Impact:**

Our high-quality computing curriculum aims to develop a range of programming and technological skills that are transferable to other curriculum areas, including Science, Mathematics, English and History. As children progress through Key Stage 1 and Key Stage 2, they will become increasingly confident in:

- The application of their digital skills
- Communicating, collaborating and analysing
- Showing imagination and creativity in their use of ICT in different aspects of their learning
- E-safety and the risks involved when using the Internet.

We seek to inspire a love of computing and to equip every child with the skills necessary to use technology to become independent learners. The teaching style that we adopt is as active and practical as possible.

*Mr. D. Birch*

Computing Subject Leader