Computing at Killigrew Primary and Nursery School

Intent

At Killigrew, we use the National Centre for Computing Education's (NCCE) 'Teach Computing' curriculum as the basis for our computing teaching from Year 1 to Year 6, with EYFS exploring computing through the lens of 'Understanding the World'. The 'Teach Computing' curriculum units cover nine different aspects of the computing curriculum.

We chose this particular scheme of work because we wanted a curriculum which is being reviewed and updated constantly with feedback from the schools who use it and designed to focus on the three broad aspects of the National Curriculum for computing: computer science, information technology and digital literacy. We know that these skills are crucial to educating our pupils about the digital world. Through learning these, we believe that our children will be confident in using technology, and resilient when faced with a problem-solving opportunity. By developing computational thinking from a young age, our children will understand, and contribute to, the society that they will live in as adults.

From our assessment information, we know that our pupils are increasingly confident when using iPads and mobile devices, but have less exposure to more complex subject specific skills. Therefore, it was important to us that our computing curriculum covered these skills rigorously, particularly linked to computational thinking, computer networking, communication using digital devices and the opportunity to constantly revise and revisit basic keyboard skills.

After assessing the 'Teach Computing' content, we know that the ambitious curriculum planning supported our vision of computing and we knew that we could measure progress confidently against these nine areas.

Here are the nine teaching themes of the 'Teach Computing' curriculum:

Algorithms

Computing Systems

Creating Media

Data and Information

Design and Development

Effective Use of Tools

Programming

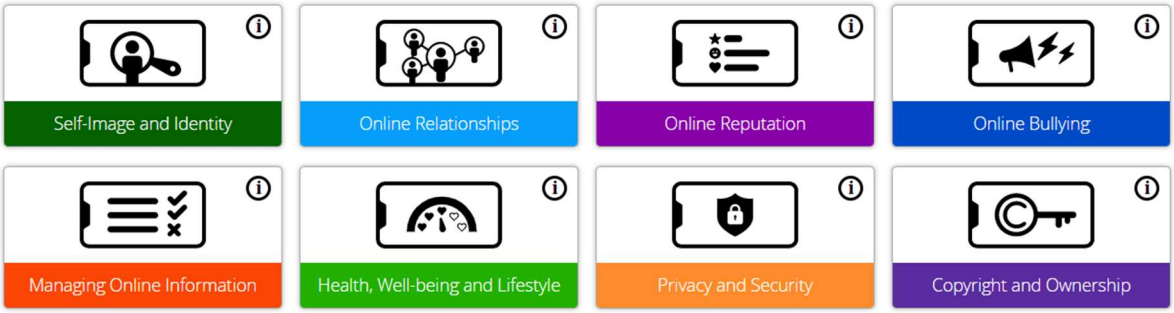
Safety and Security

The 'Teach Computing' scheme of work enables our children to use a range of different hardware including iPads, Chromebooks, BeeBots, Micro:Bits and data loggers. Being provided with Google Accounts to log into our Chromebooks enables the children to continue their learning remotely as we know that each home may contain different computing access options.

Within each year group content, the children also use a wide range of digital software. To name just a few, these include Google Workspace apps, Scratch Jr, Chrome Music Lab, Scratch, Canva, Audacity and iMovie.

Whenever possible, we make cross-curricular links in computing, but our real focus is ensuring that the children learn a high quality and ambitious computing curriculum, which prepares them for the application of key skills, both in secondary school and beyond.

E-Safety is taught using the 'Project Evolve' website, where age specific content is organised into 8 groups which is taught across the year.



Implementation

We teach computing weekly to incorporate six units for each year group for each year, one for each half term. Each unit has clear step-by-step pupil and teacher support including on-screen software demonstrations and examples of outcomes. Key vocabulary for each year group is presented within lessons so children can become familiar with and confident in using subject specific language.

During lunchtimes, we have run a girl's coding club as part of an NCCE initiative about encouraging more girls into computing. Girls in Lower Key Stage 2 have been partnered with a girl from Upper Key Stage 2 to work together on a range of different coding assignments, promoting collaboration and a wide variety of skills associated with computing.

Impact

Within the scheme of work, pupils' knowledge and understanding is checked regularly and the teacher identifies gaps in learning through self-marking and online quizzes at the end of each unit. The children also save their work in a shared Google Drive when working on a chromebook.

These measures enable us to measure impact and track pupil progress against learning

expectations in each unit. Teachers also use a paper based tracking document, which means that they can measure progression in every lesson. By using these tracking sheets and comparing them to our computing progression map, our computing subject leader can assess what progress the children are making and how this relates to age related expectations.