Computing at Killigrew Primary and Nursery School

Intent

At Killigrew, we use the Rising Stars 'Switched on Computing' programme as the basis for our computing teaching from Early Years to Year 6. This programme covers seven different aspects of the computing curriculum.

We chose this particular scheme of work because we wanted to be able to track progression in eight key areas linked to specific skills. 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 'Switched on 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 eight areas. To support this assessment, We divided these eight areas into three categories: computer science, information technology and E-Safety.

Here are the seven teaching themes of the 'Switched on Computing' curriculum:

1. **Programming**
2. **Computational thinking**
3. **Creativity**
4. **Computer networks**
5. **Communication and collaboration**
6. **Productivity**
7. **Online safety**

Here are the eight key areas where we track and monitor progression:

<u>Computer Science</u>

1. **Problem solving**
2. **Programming**
3. **Logical thinking**
4. **Digital literacy**
5. **IT beyond the school environment**

<u>Information Technology</u>

6. **Creating content**

7. Searching for information

8. <u>E-Safety</u>

The 'Switched onto Computing' scheme of work also enables our children to use a range of different hardware including iPads, Chromebooks and desktop computers. This provides the children with the opportunity to continue their learning remotely as we know that each home may contain different IT access options.

Within each year group content, the children also use a wide range of digital software. To name just a few, these include audio recording equipment, programmable toys, digital photo and sound mixing software, Microsoft Movie Maker, Scratch, Python, Inkscape, WordPress, Koder and Google Web Design.

Year 1 - Illustrating an eBook

Rising Stars objective: I can use the web safely to find ideas. I can select and use painting tools to create and change images for a particular purpose.

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.

Fusing geometry and art – I am familiar with the tools and techniques of a vector graphics package.

Implementation

We teach computing weekly to incorporate six cross-curricular units, one for each half term. Each unit has clear step-by-step pupil and teacher support including on-screen software demonstrations, examples of outcomes and data sets and a resource bank of sound effects,

posters and videos. Every unit contains an online safety 'roadmap' broken down into key aspects of E-Safety. There are colourful posters for each unit hightlighting important key vocabulary.

During lunchtime, we run a computing club, which focusses on sharing experiences and opinions by creating a sequence of blog posts on a theme (incorporating additional recording media). The work from this club is shared widely in school assemblies.

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 'saving area' when working on a desktop computer.

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.