Amberley Parochial School

Providing the rich soil that enables
our children to develop deep roots and flourish

Computing in the Early Years Foundation Stage

The Early Years Foundation Stage (EYFS) statutory framework (September 2021) no longer includes specific reference to technology. At Amberley, we believe that this does not remove our responsibility to help children to become computer literate. Indeed, in modern society, it is even more important that children are given opportunity to develop the skills that will aid their understanding of computer science, information technology and digital literacy, and the development computational thinking skills.

In Dexter class, we lay the foundations of computing and make clear links between the Early Years curriculum and the curriculum in Key Stage1. The problem solving involved in computational thinking is closely linked to the Characteristics of Effective Learning. By aligning EYFS provision to computational thinking, we use the same vocabulary as used by our colleagues in KS1, and ensure progression. The following offers examples of our approach to teaching computing in the EYFS and links to the EYFS curriculum:

Understanding the world

Our classroom may contain a role-play area with a range of technology, both functioning and model / broken devices, and children have access to a variety of electronic toys, such as remote controlled cars and walkie-talkies, as part of continuous provision at different points in the school year. Further technology is included in conjunction with other activities, such as digital cameras or ipads for pupils to photograph their own learning, and a variety of apps to promote other areas of learning such as reading and maths. Children are encouraged to select and use technology for a certain purpose, rather than simply being given a device. The pedagogical approaches used in this age group are carefully considered, including the need to tinker (or play) with a device, in order to discover how it functions.

Literacy

Bee Bots continue to be extremely popular in both Dexter (EYFS) and Hereford (KS1) classes, and provide a number of opportunities to develop pupils' computing knowledge within literacy sessions. Simple programming using these devices is included in the KS1 programme of study, but children are given opportunity to familiarise themselves with the basic functions through experiential play. They might create a story about a Bee Bot's journey, or link its route to a story we have studied. For example, children could guide the Bee Bot between different locations and characters within a traditional tale, or the farm featured in Julia Donaldson's 'What the ladybird heard'.

Physical Development

Many children entering Early Years settings are already familiar with tablet devices, although their ability to use a keyboard is often limited. This has recently become a more significant issue, due to the prevalence of tablet devices in the home. We believe that it is therefore important that children are given opportunities to become familiar with a range of input devices, including the keyboard and mouse, in order to develop the required fine motor skills. The use of these devices might be as part of role play, or inputting into an actual computer.

Communication and language

Unplugged activities, or those away from the machine, give children an opportunity to develop their understanding of technology without the need for physical devices. As part of our work on nonfiction texts, children might be asked to give precise instructions verbally, with links made to the importance of using the correct vocabulary, along with speaking clearly and precisely. Giving instructions might also form part of sessions linked to physical development activities, such as determining rules for certain playground games. Computational thinking activities require clarity of speech and an ability to express one's though processes clearly. 'Barefoot' activities that promote computational thinking are planned in at different points during the school year. Using voice and video recorders also allows children to self evaluate their own speaking and can aid the development of their speech clarity.

Personal, Social and Emotional Development

Voice recorders, or the microphone built into a tablet device, might be used to record how pupils are feeling, or to discuss their relationships with others. Similar devices/ apps might be used to discuss character emotions at different parts of a story, so that images from the text become animated. We use a range of age-appropriate books to examine online safety, such as 'Troll Stinks' and 'Chicken Clicking' by Jeanne Willis, and 'Smartie the Penguin' (Childnet).

Expressive arts and design

The use of painting and graphics apps can further develop pupils' keyboard and mouse skills, whilst a range of tablet based apps are also available at different times during continuous provision. Creative outcomes can be produced, which allow pupils to take ownership of their work and might be part of an extended project. This work might be linked to other uses of technology, such as producing mats for Bee Bots to travel around, or the creation of Bee Bot covers to link them to stories/ themes that are in focus.

Mathematics

The computational thinking skills of sorting, ordering and sequencing, grouping and naming and abstraction are closely aligned to the foundations of mathematics. There are regular opportunities for children to develop these skills within maths lessons and continuous provision. In addition, controlling devices can provide opportunities for pupils to develop their understanding of positional and directional language, as well as repetitive pattern. Pupils might be asked to guide a device around a shape or towards a certain number of objects, or to create a movement which repeats.