

## EYFS Computing

The EYFS framework is structured very differently to the national curriculum as it is organised across seven areas of learning rather than subject areas. Despite computing not being explicitly mentioned within the EYFS framework, there are many opportunities for young children to use technology to solve problems and produce creative outcomes. In particular, many areas of the framework provide opportunities for pupils to develop their ability to use computational thinking effectively.

The most relevant early years outcomes for computing are taken from the following areas of learning:

### ***Understanding the World***

<b>Computing</b>			
30-50 Months	Understanding the World	Technology	<ul style="list-style-type: none"> <li>To know how to operate simple equipment.</li> <li>To show an interest in technological toys with knobs or pulleys, or real objects.</li> <li>To show skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images.</li> <li>To know that information can be retrieved from computers.</li> </ul>
40-60 Months	Understanding the World	Technology	<ul style="list-style-type: none"> <li>To complete a simple program on a computer.</li> <li>To interact with age-appropriate computer software.</li> </ul>
ELG	Understanding the World	Technology	<ul style="list-style-type: none"> <li>To recognise that a range of technology is used in places such as homes and schools. To select and use technology for particular purposes.</li> </ul>

***Understanding the world*** - Classrooms could contain a role play area with a range of technology, both functioning and model/broken devices, or a variety of electronic toys, such as remote controlled cars, walkie-talkies and interactive pets, as part of continuous provision. Further technology could be included in conjunction with other activities, such as digital cameras for pupils to photograph their own learning, although children need to “select and use technology for a particular purpose”, rather than simply being given a device.

***Literacy*** - Bee Bots are extremely popular in both EYFS and Key Stage 1, and provide a number of opportunities to develop pupils’ computing knowledge within literacy sessions. Children could create a story about the Bee Bot’s journey, such as around a local area or a country being studied, or they could sequence events within a story being studied. For example, children could guide the Bee Bot between different locations, characters and locations within Little Red Riding Hood. In addition to this, programming devices suitable for young children can be used, such as the Code-a-pillar by Fisher-Price.

***Physical development*** - many children entering Early Years settings are already familiar with tablet devices, although their ability to use a keyboard and mouse is often limited. This has recently become a more significant issue, due to the prevalence of tablet devices in the home. 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. Usage could be linked to phonics sessions, such as through the use of drill and practice games, including Dance Mat Typing or the Animal Typing app, or more creative outcomes, as described when examining the areas below.

***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 expensive devices. Children could be asked to give precise instructions verbally, such as through giving instructions to a sandwich making robot, with links made to the importance of using the correct vocabulary, along with speaking clearly and precisely. Give me instructions could also

form part of sessions linked to physical development activities, such as determining rules for certain playground games.

**Personal, social and emotional development** - Voice recorders, or the microphone built into a tablet device, could be used to record how pupils are feeling, or to discuss their relationships with others. This could be extended through pupils creating their own videos, which could also link to children giving online safety guidance to their peers on using technology safely and what to do if they feel worried or concerned when you using a device. A range of age-appropriate books are now available for young children to examine online safety, such as [Chicken Clicking](#), [Goldilocks \(A hashtag cautionary tale\)](#) and the free [Smartie the Penguin](#). Using voice and video recorders also allows children to self-evaluate their own speaking.

**Expressive arts and design** - The use of painting and graphics applications can further develop pupils' keyboard and mouse skills, whilst a range of tablet based apps are also available. Creative outcomes can be produced, which allows pupils to take ownership of their work and could even be part of an extended project. Outputs produced could be linked to other uses of technology, such as producing mats for Bee Beets to travel around, other physical computing devices, such as [Spheros](#), can even be put into paint and controlled using a tablet device to produce images. Outfits for the device to wear, such as Bee Bot head dresses or Sphero paper cup people, could also be developed.

**Mathematics** - Controlling devices provides an excellent opportunity to develop pupils' understanding of left and right, along with directional language. Pupils could be asked to guide a device around a shape, or even use activities from programming related websites, such as [code.org](#), to develop their understanding further. However, whilst such activities can effectively engage pupils in programming tasks, their usage should be carefully considered to ensure they have a purpose.

Year Group	Term 1 Computer Networks and the Internet	Term 2 Multimedia	Term 3 Digital Literacy E-Safety Week	Term 3 Computer Science & Computer Science Unplugged	Term 4 Computer Science Programming	Term 5 Information Technology Data Handling	Term 6 Information Technology (Switched on Computing)
EYFS	<p><b>Identify technology and develop basic skills</b></p> <p>Identify keyboard, monitor, mouse and uses of technology at school and home</p> <p>Open and close a program using the mouse</p> <p>Drag objects across the screen when using online activities</p> <p>Develop their mouse control</p> <p>Log on to a computer network such as the school's Learning Platform</p>	<p><b>Make use of software, online games and apps</b></p> <p>Allow pupils to create something new. Pupil should have opportunities to work with images, text and sound.</p> <p>Recognise their name on the keyboard and add it to a piece of work</p> <p>Explore a simple paint program and begin to use different brushes, tools and colours to create a picture on a given topic</p>	<p><b>Smartie the Penguin</b> <a href="http://kidsmart.org.uk/teachers/ks1/">http://kidsmart.org.uk/teachers/ks1/</a></p> <p>Use technology toys such as mobile phones or walkie talkies to role play talking kindly to one another.</p> <p>Talk about what you know about yourself such as your name and where you live. Which things do your parents know?</p> <p>Follow links to appropriate games on the Internet which they can sit with a friend to play.</p> <p>Read Smartie the Penguin and use the talk prompts to consider good and bad choices.</p> <p>Change to a different activity when they have spent a reasonable amount of time using technology using something such as an egg timer to remind them.</p>	<p><b>Talk about electronic equipment in real-life situations,</b></p> <p>(e.g. traffic lights, scanners, microwaves, cash tills, etc.) and investigate how they work.</p> <p>Look around the school and environment at technology with control switches, (e.g. photocopier, alarms, washing machines, television sets).</p> <p>Online games and Apps for controlling objects</p>	<p><b>Controlling Objects</b></p> <p>Children play with remote control cars and other 'push button' toys</p> <p>Use control toys in conjunction with stories, (e.g. dress Bee-bot up as a character such as Incy Wincy Spider, and see how many moves it will take to move up the waterspout).</p> <p><a href="http://www.tts-group.co.uk/RMVirtual/Media/Downloads/BEEB-OT-How-To-1.pdf">http://www.tts-group.co.uk/RMVirtual/Media/Downloads/BEEB-OT-How-To-1.pdf</a></p>	<p><b>Use appropriate internet-based games and activities to support their learning</b></p> <p><b>Crick Web -</b> <a href="http://www.crickweb.co.uk/Early-Years.html">http://www.crickweb.co.uk/Early-Years.html</a></p> <p><b>Topmarks Search -</b> <a href="http://www.topmarks.co.uk/Search.aspx?Subject=37">http://www.topmarks.co.uk/Search.aspx?Subject=37</a></p> <p><b>Primary Interactive -</b> <a href="http://www.primaryinteractive.co.uk/early.htm">http://www.primaryinteractive.co.uk/early.htm</a></p>	<p><b>We are Successful</b></p> <p>Children make a presentation which celebrates their achievements or special events in their life - Switched on ICT in the Early Years sample unit of work</p>