










Understanding the World (Specific Area)

Technology: children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purpose.

Early Learning Goals	Computing Skills	Suggested Activities
<p>Technology: children recognise that a range of technology is used in places such as homes and schools.</p> <p>They select and use technology for particular purposes.</p>	<p> Interact and explore their environment using a range of multimedia equipment, including digital cameras, video cameras, microscopes etc. This could also include the use of tablets e.g. iPad to capture still and moving images.</p> <p> Explore ways of listening to sounds using simple programs and devices.</p> <p> Use a shortcut such as an icon on the desktop to navigate to a specific website.</p> <p> Explore a teacher-selected website to find a desired page, using hyperlinks and navigation buttons.</p> <p> Be aware that digital devices e.g., thermometers, metal detectors, and sound monitors can be used to show external changes.</p>	<ul style="list-style-type: none">• Take digital pictures on a nature walk and display them on the IWB. The digital images can be enlarged so that children can look in more detail at objects.• Provide metal detectors in places such as outdoors or the sand tray.• Use the microscope / visualiser to examine objects (e.g. minibeasts) and take videos and pictures.• Record environmental sounds and match them with digital images in a talking book.• Use pre-recorded sounds to play lotto or guessing games with the children. (Either recorded by the class, or downloaded from sites such as Soungle).• Provide shortcuts on the computer desktop to teacher-selected websites, CD ROM or Espresso to find information.• Use monitoring resources, (e.g. thermometer, metal detector, sound monitor) to investigate changes in temperature, materials, and sound. <p><i>Examples of appropriate resources include:</i></p> <ul style="list-style-type: none">• Role play toys (e.g. hoovers, microwaves, tills, old mobile phones, washing machines etc.)

		<ul style="list-style-type: none"> • 'Real' technology in their home and school (e.g. photocopiers, automatic doors, mobile technology – tablets and phones, hand dryer) • Primary and secondary sources of information about technology in different cultures and in the past (e.g. BBC Bitesize: How Computers have changed, or What are the parts of a computer?) • 
	<ul style="list-style-type: none">  With help, play back captured still or moving images, becoming familiar with the control buttons, e.g., using play, stop and pause.  Explore ways of making and listening to sounds using programs and devices.  Collect information, e.g., by taking photographs or collecting objects. 	<ul style="list-style-type: none"> • Demonstrate how sound devices are controlled, describing actions and buttons, (e.g. 'record', 'play'), both on and off screen. • Encourage free play with sound devices, enabling children to become familiar with the equipment. • Demonstrate how to download images from the camera to a computer and view them. • Watch videos of living things - (e.g. BBC Learning Zone Broadband has many clips). • Look at technology in outside visits - (e.g. ATM machines, credit card payment machines, weighing and measuring devices, bar codes etc.) • Online ordering activity: <ul style="list-style-type: none"> ◦ Primary Resources - Science • Use digital cameras in outdoor and investigative play for children to collect information.



Begin to sort, classify or group various objects progressing from practical activities to the use of ICT, e.g., practically sorting fruit into colours, types or shapes, and then on-screen.



Use ICT to sort and sequence objects on a screen or interactive whiteboard.




Produce simple pictograms with help.

- Provide digital / video cameras and microscopes in exploratory activities for the children to take pictures of what they see.
- Monitor the [bird box webcam](#).
- Take daily pictures of e.g. a growing seedling, the weather), and observe how the pictures change over time.
- Attach a digital microscope to the IWB to observe different objects.
- Use an Easi-scope to take close up pictures, and look at them closely on the IWB.
- Provide digital cameras and ask the children to take pictures of different objects with the same criteria (e.g. smooth, fluffy, striped etc.)
- Use digital pictures collected by the children to sort, using different criteria.

Examples of appropriate resources include:

- Online, interactive stories and rhymes
- Screens, IWBs or tablets with mark making software and apps.
- Equipment or apps for recording voice
- Digital cameras or tablets to record still and moving images
- Programs / apps such as [Sock Puppets](#), [Puppet Pals](#) and [Drawing Pad](#) on tablets or as [Photostory](#), Smart Notebook gallery or a selection of age appropriate software such as that produced by [2Simple](#).

		<ul style="list-style-type: none"> • Websites which encourage early 
	<ul style="list-style-type: none"> • LC Explore toys that simulate control devices e.g., traffic lights, scanner, microwave, cash tills, with the intention of finding out how it works. • LC Explore the commands needed to control a range of electronic toys. • SM Explore simple simulations and find out ' what happens if 	<ul style="list-style-type: none"> • Encourage exploratory play with remote control toys, webcams, onscreen activities and simple control devices (e.g. Constructabot, microwave, kettle vacuum etc.) • 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). • Talk about electronic equipment in real-life situations, (e.g. traffic lights, scanners, microwaves, cash tills, etc.) and investigate how they work. • Investigate the 'insides' of old equipment (e.g. computer or tape recorder). • Demonstrate how batteries make a toy work. • Look around the school and environment at technology with control switches, (e.g. photocopier, alarms, washing machines, television sets). • Online simulation games



Use a program that allows children to select objects and animate them.



With help, use buttons to play back sounds on a computer and a sound player.



Use a variety of electronic toys in play situations, e.g., dance mats, Beebots, and remote control toys, using basic directional language.

- Use programs that allow children to select and animate objects, (e.g. Beep, 2Create a Superstory).
- Use a digital camera to take pictures of control devices that the children find on a local walk.
- Incorporate technology into role play areas.
- Give simple instructions to a Beebot, (e.g. to travel to different numbers on a numberline).
- Model using different types of technology, (e.g. demonstrate how to send a text message).
- Talk about the different controls on the microwave in cooking activities.
- Allow children to use the photocopier or scanner to save and print out work.






Examples of appropriate resources include:


- Simple control toys: Beebot, Infant Roamer, remote control vehicles...




- On screen simulations such as Beebot, [Trucks](#) from [Duck Duck Moose](#) or [Toca Boca](#) (digital toys and games for kids) and simple problem solving games such as [Jumbo the Elephant](#).



	<p> Use a shortcut such as an icon on the desktop to navigate to a specific website.</p> <p> Explore a teacher-selected website or CD ROM to find a desired page, using hyperlinks and navigation buttons.</p>	<ul style="list-style-type: none"> • Provide appropriate CD ROMS, (e.g. At the Garden Centre, At the Zoo etc.) • Teach the children how to find information from appropriate websites or Espresso. • Develop a sense of time by taking pictures outdoors at different times of the year. • Record events in the local environment. • Put a shortcut on the desktop to a webcam for the children to capture still and moving images. <p>Send a camera home for the children to collect images of their house / neighbourhood</p>
	<p> Use a shortcut such as an icon on the desktop to navigate to a specific website.</p> <p> Explore a teacher-selected website to find a desired page, using hyperlinks and navigation buttons.</p>	<ul style="list-style-type: none"> • Use programmes (e.g. BBC Learning Zone Broadband Class Clips) and websites to investigate information. • Take pictures on visits (e.g. to the shops) and create talking books. • Make a 'sound trail' of instructions using talking tins for the children to follow. • Look at live webcams (e.g. The Smithsonian Zoo) • Explore Google Earth or Google Street View and ask the children to find familiar places. <p>Use the microscope on the IWB.</p>
	<p> Interact and explore their environment using multimedia equipment, including digital cameras, video cameras, microscopes,</p>	<ul style="list-style-type: none"> • Locate the local area on Google maps, and ask the children to

	webcams and visualisers to capture still and moving images.	<p>draw maps and identify different features.</p> <p>Provide digital cameras for the children to take pictures of features they like and dislike in the local area.</p>
	 Use a shortcut such as an icon on the desktop to navigate to a specific website.	Visit different websites to learn about different cultures and beliefs.
	<p>E-Safety Pupils understand that information about themselves may be personal and they can choose who to share it with.</p>	<ul style="list-style-type: none"> • With support, pupils can manage can their online activity safely, recognising which information should be kept private. They can explain what it means to stay safe online and older pupils identify some of the potential risks associated with the online world. • They communicate safely and respectfully using a range of digital devices, making links to their behaviour in the physical world. Pupils start to develop strategies for managing concerns about online content or contact; seeking help and support when needed. <p><i>Examples of appropriate resources include:</i></p> <ul style="list-style-type: none"> ▪ An age appropriate Learning Platform to model and practise safe use of communication tools ▪ age appropriate resources such as Hector's World ▪ stories such as Digiduck (a story of friendship and responsibility online) and Smartie the Penguin ▪ using child friendly search engines such as Kidrex

		<p>Visit www.ccc-computing.org.uk for more links to useful e-safety resources.</p> 
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TM Text and Multimedia

EC Electronic Communication

DL Datalogging

I/A Images, Video and Animation

DR Digital Research

LC Logo and Control

S Sound

DH Data Handling

SM Simulations and Modelling

Technology: (Nursery)

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Operates mechanical toys, e.g. turns the knob on a wind-up toy or pulls back on a friction car	Shows an interest in technological toys with knobs or pulleys, or real	Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound,		Knows information can be retrieved from computers	Uses ICT hardware to interact with age-appropriate computer software.

Uses and responds to real or improvised technological resources.	objects such as cameras or mobile phones.	movements or new images. Uses technologies to share experiences with others and share experiences of using technology.		Uses technologies, with support, to find out more about the world around them.	
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Technology: (Reception)

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Uses ICT hardware to interact with age-appropriate computer software. (beebots, learn pads, microphones, phones, computer) Uses technologies to enhance, change or recreate within a learning experience.	Uses ICT hardware to interact with age-appropriate computer software. (beebots, learn pads, microphones, phones, computer, 2paint, 2simple, 2create a story)	Uses ICT hardware to interact with age-appropriate computer software. (beebots, learn pads, microphones, phones, computer, 2paint, 2simple, 2create a story) Captures and documents a sequence of events or experiences using ICT.	Completes a simple program on a computer (2paint, 2simple, 2create a story, word, coding, begin to use internet)	Completes a simple program on a computer (2paint, 2simple, 2create a story, word, coding, begin to use internet) Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. Recognises that a range of technology is used in places such as homes and schools.	Completes a simple program on a computer (2paint, 2simple, 2create a story, word, coding, begin to use internet) Selects and uses technology for particular purposes. Exceeding: Pupils understand that information about themselves may be personal and they can choose who to share it with.