



ICT Progression of Skills Including RSHE



	Reception	Year 1	Year 2
Computer Science <u>Control and Programming</u>	<p>Role play with a variety of electronic toys and old toy remote controls/mobile phones etc.</p> <p>Explore outcomes when individual buttons are pressed on a robot (beebot)</p> <p>Choose and use appropriate role play electronic toys (tills)</p> <p>Begin to be aware of and have opportunities to use computer-controlled devices in the outside world (pelican crossing, hand dryers, automatic doors, supermarket technology)</p> <p>With help, record voice using various devices, recorder, microphone.</p>	<p>Write algorithms away from the computer for everyday tasks (brushing teeth, getting dressed, getting changed for PE) Give some examples with errors for children to 'debug'.</p> <p>Create/follow instructions (algorithms) to navigate programmable toys (and other children) around a course.</p> <p>Have experiences of controlling other devices such as digital cameras, ipads.</p> <p>Use a mouse, pen or finger to move and place items accurately on a screen to explore a simulation in other curriculum areas and talk about what happens.</p>	<p>Input algorithms into a program to create a simple shape on screen or to control a device. (Beebot world, scratch)</p> <p>Use logical reasoning to make predictions when programming devices (actual or on screen) estimating distances and turns.</p> <p>Make choices in an adventure game or simulation (BBC Science simulations) talk about their simulations and be able to compare with reality.</p>
Vocabulary	INSTRUCTIONS	INSTRUCTIONS DEBUG	ALGORITHM DEBUG
Digital Literacy <u>Text Processing and Multimedia</u>	<p>Begin to understand that in addition to touch screens, a keyboard and mouse are tools for navigating a computer and entering text.</p>	<p>Start to develop familiarity of the keyboard – spacebar, backspace, return, shift, return etc.</p> <p>Use images and text in simple presentations.</p>	<p>Develop familiarity and correct use of the keyboard – spacebar, backspace, return, shift, (for capital letters not caps lock) return etc.</p>

	Use a keyboard (with support) and notice the effect on screen. With support type simple words, their name etc.	Begin to format text (size, font, colour etc)	Use images and text in simple presentations. Format text (size, colour, font) Add captions to photographs and graphics.
VOCABULARY	KEYBOARD, MOUSE, KEY, TYPE, SCROLL, TAP	SPACEBAR, BACKSPACE, RETURN, SHIFT	SIZE FONT COLOUR
<u>Graphic Packages</u>	Use the tools in simple painting programs (eg brush, fill tool, colour selection, stamp) on a whiteboard or interactive screen. Use an object based graphics program to create a scene by dragging objects into a place on a background. Take a photo of their work.	Use digital photographs to record their work.	Develop a variety of skills using a range of tools and techniques to communicate a specific idea or artistic style/effect.
<u>VOCABULARY</u>	FILL TOOL, BRUSH, DRAG	SIZE, CAPTURE	STYLE, EFFECT, ENLARGE, ROTATE
<u>Sound and Music</u>	Use simple buttons to play back recorded sounds (on computer) Explore ways of making and listening to sounds using simple programs, age appropriate apps)	Use various sound recorders to record and playback sounds (eg voices, instruments, microphones, sounds around them) Use simple software to explore sound and musical phrases.	Explore a range of electronic music and sound devices. Use software to explore sound and musical phrases for a purpose.
Information Technology <u>Research</u>	With help, search for and choose images from the internet. With support, use websites to locate a small amount of information.	Use appropriate buttons, menus and hyperlinks to navigate given websites. Enter one-word text into a search engine to find specific given websites.	Begin to evaluate websites by giving opinions about preferred sites. Enter text into a search engine and URL's in the address bar to find specific given websites.

	<p>With support, enter text into search engines to find specific given websites.</p> <p>Use QR codes to navigate to specific websites.</p> <p>With help use appropriate buttons and menus to navigate websites.</p>		<p>Enter text into a safe search engine to find information on a given topic. Start to evaluate whether the information is useful.</p> <p>Start to apply research skills using different search engines and websites.</p> <p>Know that sometimes we can use our voices to research (Alexa, Siri)</p> <p>Understand that some information is stored on single computers or devices, some is stored on a small network, and some is stored on big servers and accessed by everyone in the world (the internet)</p>
VOCABULARY	QR CODE, BACK, WEBSITE, HOME	HYPERLINK SEARCH	INTERNET, SEARCH ENGINE,
Internet Safety	<p>Know there are online safety rules to follow.</p> <p>Know that their own logins for web based online learning are personal and should not be shared.</p> <p>Tell someone if they view content they think is inappropriate or upsetting. Start to</p>	<p>Know the School Acceptable Use policy and some online rules for keeping safe when viewing content or communicating online.</p> <p>Know how to minimise a screen if they see something inappropriate on a website and</p>	<p>Know the School Acceptable Use policy and some online rules for keeping safe when viewing content or communicating online.</p> <p>Know what to do if they view content they think is inappropriate or upsetting (eg</p>

	<p>know how they can minimise the screen.</p> <p>Know they can share their content with others. (eg printing)</p> <p>Know to tell a trusted adult if anyone asks them to do something that makes them feel sad, embarrassed or upset. Understand that some people can be unkind online.</p>	<p>tell a trusted adult.</p> <p>Know that you can be diverted from a website through a link to a new website, advertising or pop-up.</p> <p>Know there are different ways of searching the internet (images only, keyword search or voice activation.)</p> <p>Know that anyone can create a website and it is sometimes difficult to know if information is true.</p> <p>Identify some risks presented by online technologies outside school (eg strangers in online games, social media, messaging and online bullying.) Identify where to go for help.</p> <p>Know a stranger is someone that you don't know in the real world. Know that online communication is never confidential and that it can be monitored.</p> <p>Know that an online identity may be very different than their real-life identity.</p>	<p>school policy)</p> <p>Know how to minimise a screen if they see something inappropriate on a website and tell a trusted adult.</p> <p>Know there are different ways of searching the internet (eg images only, keyword, voice activation)</p> <p>Know that anyone can create a website and it is sometimes difficult to know if the information is true.</p> <p>Identify some risks presented by online technologies outside school (eg strangers in online gaming, social media, messaging and online bullying.) Identify where to go for help.</p> <p>Know that online communication is never confidential and that it can be monitored. Know that an online identity may be very different than their real-life identity.</p> <p>Learn to respect the work of others when presented online.</p>
	<p>Know things they create belong to them and can be shared with others.</p> <p>Start to learn respect for the work of others.</p> <p>Understand simple examples of personal information (name, address, age, birthday) and describe the people they trust to share this with.</p> <p>Know different ways that information is shared on the internet.</p>		

		<p>Learn to respect the work of others when stored on a shared drive or presented online.</p> <p>Know to keep personal information private when communicating online or logging on with username/password.</p> <p>Know that sometimes being online too much can sometimes have a negative effect on people.</p> <p>Know that some content on the internet and some digital games are age related to protect young people from unsuitable content and therefore they should be making appropriate choices.</p> <p>Know that information we put online leaves a digital footprint.</p> <p>Learn the importance of turning off to save energy when not used.</p> <p>Identify where to go for help and support when they have concerns about content or contact on the internet or other technologies.</p>	<p>Know to keep personal information private when communicating online.</p> <p>Know that sometimes being online too much can sometimes have a negative effect on people.</p> <p>Know that some content on the internet and some digital games are age related to protect young people from unsuitable content and therefore they should be making appropriate choices.</p> <p>Know that information we put online leaves a digital footprint.</p> <p>Learn the importance of turning off to save energy when not used.</p> <p>Identify where to go for help and support when they have concerns about content or contact on the internet or other technologies.</p>
VOCABULARY	E SAFETY PERSONAL INFORMATION, TRUSTED ADULT.	POP UP, SOCIAL MEDIA, ONLINE IDENTITY	ONLINE BULLYING, CONFIDENTIAL,

End of KS1

- understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies