

Strand	Program of Study	LI and SC	Activity Suggestions	Learning Outcome – By the end of this unit children should be able to...
ICT	use technology purposefully to create, organise, store, manipulate and retrieve digital content	<ul style="list-style-type: none"> <li>See separate sheet</li> </ul>	To be taught cross-curricularly e.g. making an animation in Literacy or making a table with animal information in Science	<ul style="list-style-type: none"> <li>See separate sheet</li> </ul>
What are Computers?	recognise common uses of information technology beyond school	<p>LI: to recognise computers and understand what they do</p> <p>I must remember:</p> <ul style="list-style-type: none"> <li>A computer is a device that performs a range of functions according to how it is programmed.</li> </ul>	<p>What is a computer? - A hunt around school looking for computers. Sorting photos of objects into computers and not computers.</p> <p>Discussing objects in the house that might have computers e.g. washing machines, televisions, mobiles phones, microwaves. How do we interact with him?</p> <p>How does the computer know what to type? We press a button - that's its input, the computer processes which button has been pressed and which letter needs to be shown, it outputs it on the screen. Children could draw a sequence of events showing Input-process-output model</p>	<ul style="list-style-type: none"> <li>I can recognise computers in a range of forms outside of school e.g. traffic lights, dvd players, microwaves</li> <li>I know that people interact with computers.</li> <li>I know that computers have no intelligence and that computers can do nothing unless a program is run.</li> <li>I know that all software executed on digital devices is programmed.</li> </ul>
Algorithms	understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions	<p>LI: to know that algorithms are a set of instructions for a computer</p> <p>I must remember:</p> <ul style="list-style-type: none"> <li>To think carefully about the order of instructions</li> <li>That I can repeat a set of instructions using a loop</li> </ul>	<p>Follow a set of instructions - using algorithm vocab, have something that goes wrong - can children debug them by finding the mistake?</p> <p>Children explain an algorithm for making something e.g. paper airplane - be pedantic, every step needs to be noted</p> <p>Children follow an algorithm for moving to a space, they need to follow in order. What if they do the same thing over and over again? Rather than writing it out again we can use a loop</p> <p>If you change one of the directional sequences - what do the children think will happen?</p>	<ul style="list-style-type: none"> <li>I can explain what an algorithm is</li> <li>I know that computers need precise instructions</li> <li>I can record a simple algorithm using symbols</li> <li>I can show care and precision to avoid errors</li> <li>I can use some terminology for loops and selection when discussing an algorithm</li> </ul>
Programming	<p>create and debug simple programs</p> <p>use logical reasoning to predict the behaviour of simple programs</p>	<p>LI: To program a computer</p> <p>I must remember:</p> <ul style="list-style-type: none"> <li>A computer will only do what it has been programmed to do</li> <li>To break instructions down into small steps</li> <li>Programs run in order from start to finish</li> </ul>	<p>Children program movements with the floor robot</p> <p>Children look through the steps in a program and try and explain why it went wrong</p> <p>Ask children to get the Probot to move in a certain way - discuss having to write the same thing repeatedly; there are quicker ways of doing things</p>	<ul style="list-style-type: none"> <li>I can explain that users can write their own programs</li> <li>I can explain that computers only do what someone has told them to</li> <li>I can create a simple program</li> <li>I can run, check and change programs.</li> <li>I can repeat a section of a program</li> </ul>
Digital Citizenship	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	<ul style="list-style-type: none"> <li>See separate sheet</li> </ul>	<p>Taught discreetly through stories, discussions circle times etc.</p> <p>Activities could include making posters and role play</p> <p>Needs to be embedded throughout all lessons as well</p>	<ul style="list-style-type: none"> <li>I can choose a sensible password including something I can remember/spell</li> <li>I can explain why I need to keep my password secret from other children</li> <li>I can show the same behaviours online as I do offline</li> <li>I can explain what to do if I find something inappropriate</li> <li>I can explain that not everything on the Internet is true</li> </ul>