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	● See separate sheet	To be taught cross-curricularly e.g. making an animation in Literacy or making a table with animal information in Science	● See separate sheet
What are Computers?	recognise common uses of information technology beyond school	LI: to recognise computers and understand what they do I must remember: o A computer is a device that performs a range of functions according to how it is programmed.	What is a computer? - A hunt around school looking for computers. Sorting photos of objects into computers and not computers. Discussing objects in the house that might have computers e.g. washing machines, televisions, mobiles phones, microwaves. How do we interact with him? 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	● I can recognise computers in a range of forms outside of school e.g. traffic lights, dvd players, microwaves ● I know that people interact with computers. ● I know that computers have no intelligence and that computers can do nothing unless a program is run. ● I know that all software executed on digital devices is programmed.
Algorithms	understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions	LI: to know that algorithms are a set of instructions for a computer I must remember: o To think carefully about the order of instructions o That I can repeat a set of instructions using a loop	Follow a set of instructions - using algorithm vocab, have something that goes wrong - can children debug them by finding the mistake? Children explain an algorithm for making something e.g. paper airplane - be pedantic, every step needs to be noted 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 If you change one of the directional sequences - what do the children think will happen?	● I can explain what an algorithm is ● I know that computers need precise instructions ● I can record a simple algorithm using symbols ● I can show care and precision to avoid errors ● I can use some terminology for loops and selection when discussing an algorithm
Programming	create and debug simple programs use logical reasoning to predict the behaviour of simple programs	LI: To program a computer I must remember: o A computer will only do what it has been programmed to do o To break instructions down into small steps o Programs run in order from start to finish	Children program movements with the floor robot Children look through the steps in a program and try and explain why it went wrong 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	● I can explain that users can write their own programs ● I can explain that computers only do what someone has told them to ● I can create a simple program ● I can run, check and change programs. ● I can repeat a section of a program
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	● See separate sheet	Taught discreetly through stories, discussions circle times etc. Activities could include making posters and role play Needs to be embedded throughout all lessons as well	● I can choose a sensible password including something I can remember/spell ● I can explain why I need to keep my password secret from other children ● I can show the same behaviours online as I do offline ● I can explain what to do if I find something inappropriate ● I can explain that not everything on the Internet is true