Computing Progression of Skills

YEAR	**Programming & Control** Curr links: UW, Geography, Math's	**Multimedia** Curr links: Music. UW, art	**Data Handling/ Logging** Curr links: Maths	**Digital Research** Curr links: UW, history, science,	**Online Safety** Curr links: PSHE,	**Vocabulary**
YEAR						
R	Exploration of programmable toys. Beginning to program a Bee Bot to follow a route such as a number line, go to set destinations, simple estimations of distance (e.g. number of presses). Chn to follow and give a simple instruction (algorithm)	**Music/Sound:** Listen and appraise music with adult support. **Graphics:** Adults model how pictures and voice recordings can be put into a story app on ipad. Explore voice and sound recording with adult support /recorders/microphones). Structured exploration of art packages to create and label pictures. Explore different tools to create shapes, change colour. Chn begin to record own voice, sounds, names, stories with adult support. Extend use of role play/small world software such as My World, simple city, through adult direction and more structured use.	Adult modelled pictograms-practically	Adults model the use of the internet for finding images/simple information. Begin to understand that the certain buttons have a function on websites e.g. back button and go/search button.	Understand that children must tell an adult if they see something on the internet that they don't like (Jessie and Friends)	On, Off, Switch, Backwards, Forward, Instruction, Sound, Moving, Buttons, Collect, Command, Computer, Count, Equipment, Keyboard, Keys, Monitor, Mouse, Movement, Organise, Phone, Camera, Remote, Set of photos, Type, Choices, Create Internet, Information, Share Technology, Website
1	Linking and comparing the use of programmable toys to the wider world. Begin to write and follow instructions, numerical value of instructions (inc straight and turning commands). Begin to explore outcomes when instructions are given in sequence. Follow a sequence of instructions	**Music/Sound:** Extending music into musical sounds and sequences. Create short rhythmic phrases creating sequences with repeat. Listen and appraise music. **Graphics:** Children to begin to take photos of the local area/ from visits, science investigations etc and insert into photo sequences with voice overs. Photo editing/enhancing.	Introduce branching database work through practical sorting, recording in tables, graphs and pictograms. Use data to ask and answer questions.	Begin to use internet to find out about the local environment/ places/ events/ historical figures (adult directed). Begin to use search tools independently in internet e.g. Google. To begin to know information/communication can be sent electronically e.g. text, email, blogs etc.	Decisions on sharing photos. Identify different devices which can go on the internet from those which cannot. Identify what things count as personal information. Identify when inappropriate content is accessed and to know who to tell and what to do.	Online Safety and Exploring Purple Mash: Log in, Username, password, Avatar, Log out, Save, Notification Technology Outside of School: Technology Animated Story Books: Animation, E-Book, Font, File, Sound Effect, Display Boar Coding: Action, Button, Character, Coding, Command, Debug/ Debugging, Input, Object

	to complete a simple task. Chn to know and understand an algorithm is a sequence of instructions.	Explore different art and design packages- Using appropriate tools.				
2	Begin to complete more complex tasks, using repeated instructions, including writing instructions/debugging where necessary and predicting. To know how simple algorithms are implemented as programs on digital devices and executed as a sequence of instructions	**Music/Sound:** Choose and order sounds to create effect and also use repeating patterns. Listen and appraise music. **Graphics:** Begin to tell stories through animation e.g. stop frame animation (2animate). Use photos and combine with text. Know that graphics can also include Video. Begin to explore capturing video. Compare art techniques to using ICT in art. Use paint package tools with increasing accuracy.	Branching database, children to design database with adults creating it. Extend recording in tables, graphs and pictograms as appropriate and with more complicated questions and answers.	To know where to find/search for information on the internet. To discuss which websites they have visited/use regularly. To begin to send and receive emails with another class/school. To know an address is needed to send electronic communication e.g. an email/web address.	Identify obviously false information in a variety of contexts. Begin to recognise a variety of devices which can connect users with other people (e.g. xbox, PSP, ipads as well as computers). To understand the importance of what they write/post is permanent and may have an impact upon people's feelings. To begin to understand what bullying is and that it can happen electronically (cyber-bullying) Identify personal information that should be kept private in order that they are not identifiable e.g. full name, address, dob, phone number etc. To identify use of ICT beyond school and know what to do if inappropriate content is accessed.	Online Safety: Search, Internet, Sharing, Digital footprint, Email Effective Searching: Internet, Search, Search engine Coding: Action, Algorithm, Bug, Character, Code block, Debug/Debugging, Input, Object Presenting Ideas: Concept map, Presentation, Audience, Node