Grasslot School

Curriculum progression

Computing

Year Group	Statutory Document	Supporting Materials	Objectives	Key skills / knowledge (INTENT)	Key supporting activities (IMPLEMENTATION)
Sunbeams	Early Years Foundation Stage Curriculum	Barefoot Resources	Seek to acquire basic skills of turning on & operating some digital equipment. Operate mechanical toys (e.g. turns knob on wind-up toy or pulls back on friction car).	Children develop listening skills, curiosity, creativity, problem-solving abilities and thoughtful questioning. Children develop 'Computational Thinking' concepts of logical reasoning, abstraction, pattern, algorithms and decomposition. Children develop 'Computational Thinking' approaches of tinkering, creating, collaboration and persevering. Children develop skills to sort, order,	Technology is integrated into the lives of young children as a tool for learning. Children are provided with opportunities to explore technology in order to develop a familiarity with equipment and vocabulary. Children may: • take a photograph with a camera or tablet • search for information on the internet • play games on the interactive whiteboard • explore mechanical toys • use a Beebot • watch a video clip • listen to music **Barefoot Resources** (Unplugged) Skills and knowledge – Logic, Algorithms, Decomposition, Creating, Collaborating, Persevering, Pattern, Abstraction.
Nursery			Show an interest in technological toys with knobs or pulleys, real objects such as cameras, & touchscreen devices such as mobile phones & tablets. Show skill in making toys work by pressing parts or lifting flaps to achieve effects such as sounds, movement or new images. Know how to operate simple equipment i.e. Turn on CD player, uses remote control, navigate touch-capable technology with support.		**Barefoot** Autumn 1 - Busy Bodies – Look how we grow Autumn 2 – Awesome Autumn – Leaf Labrinth Spring 1 – Winter Warmers – Feed the birds Spring 2 - Spring time - Rabbit Run

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				sequence, group, name and abstract.	Summer 1 – Summer Fun – Colour Collections Summer 2 – Boats Ahoy – Boats Role Play
Reception			Know that information can be retrieved from digital devices and the internet. Play with a range of materials to learn cause & effect. Complete a simple program on electronic devices. Use ICT hardware to interact with age-appropriate software. Create content such as video, stories & draws on screen. Develop digital literacy skills by being able to access, understand and interact with a range of technologies. Use the internet with adult supervision to find & retrieve information of interest to them.	Children use IT to enhance their learning across curriculum areas.	**Barefoot** Autumn 1 - Busy bodies – Make a body Autumn 2 – Awesome Autumn – Pumpkin Soup Spring 1 - Winter Warmers – Lets make an igloo Spring 2 – Spring 2 - Seed Sequencing Summer 1 – Summer Fun - Tangrams Summer 2 – Boats Ahoy – Build a boat
Year 1	National Curriculum 2014	TEACH Computing Units	Co2/1.1 understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Co2/1.2 create and debug simple programs Co2/1.3 use logical reasoning to predict the behaviour of simple programs Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content Co2/1.5 recognise common uses of information technology beyond school	To use a PC & iPad (take photos / access applications through icons). To print. To save. To retrieve and edit. To create a series of instructions. To plan a journey for a programmable toy (i.e. Bee Bot). To use a range of instructions (e.g. direction, angles, turns).	**Technology Around Us** – Recognise technology in school & use it responsibly. **Digital Painting** – Choose appropriate tools in a program to create art & make comparisons with working non-digitally. **Moving a Robot** – Write short algorithms & programs for floor robots & predict program outcomes. **Grouping Data** – Explore object labels, then use them to sort/group objects by properties. **Programming Animations** – Design & program the movement of a character on screen to tell stories.

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Year 2			Co2/1.6 use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies	To program using Scratch Jr, 2Go, Code for Life, Code.org To test and amend a set of instructions. To find errors and amend. (debug) To write a simple program and test it. To predict what the outcome of a simple program will be (logical reasoning). To understand that algorithms are used on digital devices. To understand that programs require precise instructions. To create digital content. To store digital content. To retrieve digital content. To use a web site. To use a camera. To retrieve and manipulate digital content. To navigate the web to complete simple searches To develop understanding of how to keep safe when using technology.	**Information Technology Around Us** – Identify IT & how it's responsible use improves our world in school & beyond. **Digital Photography** – Capturing & changing digital photographs for different purposes. **Robot Algorithms** – Create & debug programs & use logical reasoning to make predictions. **Pictograms** – Collect data in tally charts & use attributes to organise & present data on a computer. **Making Music** – Use a computer as a tool to explore rhythms & melodies, before creating a musical composition. **Programming Quizzes** – Design algorithms & programs that use events to trigger sequences of code to make an interactive quiz. **National Online Safety Lesson Plans 4-7yrs**