

Computing Scheme

of

Work –

Mixed Year 1 and 2

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Sticky Learning opportunities
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I can statements...

Year 1	
DL	Uses technology safely
	Keeps personal information private
	Recognises common uses of information technology beyond school
ICT	Uses technology purposefully to create digital content
	Uses technology purposefully to store digital content
	Uses technology purposefully to retrieve digital content
CS	Understands what algorithms are
	Creates simple programs

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I can statements...

Year 2	
DL	Uses technology safely
	Keeps personal information private
	Recognises common uses of information technology beyond school
ICT	Uses technology purposefully to create digital content
	Uses technology purposefully to store digital content
	Uses technology purposefully to retrieve digital content
CS	Understands what algorithms are
	Creates simple programs

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Coding Toolkit

Toolkits are to help guide what should be included in a coding project and to aid assessment.

Toolkits for the different genres can be found in Resources folder.

A sample assessment document can be found in Resources folder.

Toolkits can be introduced in the same way that a toolkit or success criteria might be in English (Talk for Writing) and developed in the series of lessons outlined in the planning.

Particular focus should be placed on use of full sentence answers (including correct vocabulary), success in achieving goals and use of the toolkit.

Computing Vocabulary



Algorithm

An algorithm is a sequence of instructions or a set of rules to get something done.

Please note: a piece of code is not an algorithm.

Decomposition

The process of breaking down a problem into smaller manageable parts is known as decomposition.

Decomposition helps us solve complex problems and manage large projects.

Sequences

This means that the computer will run your code in order, one line at a time from the top to the bottom of your program. It will start at the first block of code, then execute the next block of code then the next and so on until it reaches the last code block of your program.

Repetition

Sometimes you want the computer to execute the same lines of code several times. This is done using a loop. There are three types of loops: Forever loops, repeat n time loops and repeat until loops. That's handy as it enables you not to have to copy the same blocks of code many times.

You may need to register and login to the Barefoot website for these resources. It's quick and free to do.

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Mastery example questions	Sticky Learning Opportunities
<div data-bbox="114 304 568 523" style="border: 1px solid black; padding: 10px; background-color: #e1f5fe; margin-bottom: 20px;"> What happens if you change? </div> <div data-bbox="622 304 1077 523" style="border: 1px solid black; padding: 10px; background-color: #ffe0b2; margin-bottom: 20px;"> If you change the order of the blocks, does it have the same result? </div> <div data-bbox="351 660 806 879" style="border: 1px solid black; padding: 10px; background-color: #ffe0b2;"> Can you get the same result with a different type of repeat block? </div>	<p><u>Computer Science (Algorithms and programming)</u></p> <p>Using Bee-bots within continuous provision / outdoor learning.</p> <p>Unplugged activities e.g., making/following instructions or a recipe.</p> <hr/> <p><u>Information Technology</u></p> <p>Laptops and iPads integrated within classroom – providing children opportunities to embed skills or revisit.</p> <p>Using iPads / laptops to create pieces of art e.g., characters from stories.</p> <p>Using search engines (Kiddle) to topic related research.</p> <hr/> <p><u>Digital Literacy</u></p> <p>Provide children opportunities to use interactive whiteboard.</p> <p>Be Safe and Healthy Week to revisit E-safety learning.</p> <p>Children use Active Learn to use passwords and to use technology safely and independently.</p>

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Autumn 1	1	2	3	4
Topic	E-safety:	E-safety:	E-safety:	E-safety:
Lesson	E-Safety Story	My personal information	Safe image searching	Keeping Zibb Safe Online Quiz
LO	To understand why the internet isn't always a safe space.	To understand what personal information, I need to keep safe	To safely search for images online. https://www.kiddle.co/	To apply my online safety knowledge to help others make good choices online.
Planning ideas	See Buddy the Internet Safety Dog PPT on the server. Share SMART safety rules.	Personal information sorting activity.	Revisit dangers online, recap school e-safety rules. Share parental/child compliancy form for using the internet at school.	See server for Zibb resources. PPT with Quiz.

Autumn 2	1	2	3	4
Topic	Digital Literacy: Using a computer	Digital Literacy: Using a computer	Digital Literacy: Using a computer	Digital Literacy: Using a computer
Lesson	Recognising technology.	Using a device: iPads	Using a device: Laptops	Using a device
LO	To identify computers in everyday lives	To safely use a device, logging on/off	To safely use a device, logging on/off	To safely use a device, using age-appropriate software.

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Planning ideas	Children to sort images of technology they may find at home.	This is space for additional time for children to practise using devices linked with topic.	This is space for additional time for children to practise using devices linked with topic.	This is space for additional time for children to practise using devices linked with topic.
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Spring 1	1	2	3
Topic	Coding with Beebots	Coding with Beebots	Coding with Beebots
Lesson	Playing & Exploring Bee-Bot: Routes	Playing & Exploring Bee-Bot: How far?	Bee-Bot Trail: Challenge
LO	To understand that a computer follows precise commands and will respond to those commands consistently	To be able to predict the behaviour of simple programs	To plan, test and debug simple programs.
Planning/Resources ideas	See Beebots planning in Computing Folder.	See Beebots planning in Computing Folder.	See Beebots planning in Computing Folder.

Spring 2	1	2	3
Topic	Digital Literacy:	Digital Literacy	Digital Literacy:
Lesson	Introduction to the topic and searching for images	Create an image gallery	Create a presentation of organised images
LO	To use a search engine to find image.	To take pictures or save images from the internet	To present my image gallery
Planning/Resource	https://www.kiddle.co/	iPads / Laptops	iPads.

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s ideas	Children to search for topic related images.	Children to save images.	MovieMaker.
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Summer 1	1	2	3	4
Topic	E-safety	Digital Literacy: Media makers	Digital Literacy: Media makers	Digital Literacy: Media makers
Lesson	Revisiting E-Safety Learning Be Safe and Healthy Week.	Children choose a book to draw an illustration for.	Use an illustration program (eg 2Simple) to recreate an illustration	Use the same program to edit an illustration
LO	An e-safety lesson appropriate for your class	To plan an illustration	To create and save an illustration	To edit an illustration
Planning/Resources ideas	Be Safe and Healthy resources. iPads, Laptops, PPT's.		2Simple on iPads	2Simple on iPads

Summer 2	1	2	3	4
Topic	Coding: Scratch Jnr - Introduction and fundamentals	Coding: Scratch Jnr - Introduction and fundamentals	Coding: Scratch Jnr - Introduction and fundamentals	Coding: Scratch Jnr - Introduction and fundamentals
Lesson	Drive across the city	Run a race	Sunset	Meet and greet
LO	To write an algorithm and program a sprite	To add sprites	To make a sprite move	To use speech in a program
Planning ideas	<u>LINK</u>	<u>LINK</u>	<u>LINK</u>	<u>LINK</u>

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