

The Flourish Federation—Knowledge Organiser

Brookfield Infant and Junior Schools



Computing Focus:	Computer Science— Programming and developing	Year 2	Term 5
What? (Key Knowledge)		What? (Activities)	
I develop my own program I.e. robots.		I develop my own program I.e. robots.	Use beebots to navigate a maze around different obstacles on a grid.
I start to use 'what if' statements and loops within programs.			On 2 code 'turtle' work through objectives to programme turtle to move. They work through the objectives using commands learnt in previous unit such as 'when clicked' and arrow keys to make the turtle move. By the end of the challenge they create their own program making the turtle and food move using the skills learnt.
I start to detect and debug simple programs.			
I use logical reasoning to predict the behaviour of simple programs.			
Useful Web Links			
https://www.purplemash.com/sch/brookfield-infant			
			
Children all have home access. Log in details are in the front of Reading Record books.			
		I start to use 'what if' statements and loops within programs.	Children use 2 code vehicles to investigate questions such as what if I want vehicles to move at different speeds/ different times 'Guard the castle' on 2 code provides challenges including creating loops.
		I start to detect and debug simple programs.	In 'turtle' and 'vehicles' children have opportunities to try out ideas and fix code . They are given challenges to fix already written code by detecting errors in the algorithm.
		I use logical reasoning to predict the behaviour of simple programs.	Children will understand that the computer will follow exactly the instructions given and can read blocks of code and use it to explain what will happen next,

What? (Key Vocabulary)	
Spelling	Definition
Direction	A course along which something moves
Challenge	A task or situation that tests someone's abilities.
Arrow	A mark or sign resembling an arrow, used to show direction or position.
Undo	Cancel or reverse the instruction.
Rewind	Move back several steps or to the start.

What? (Key Vocabulary)	
Spelling	Definition
Debug	To find and remove errors from computer hardware or software.
Instruction	Information about how something should be done.
Algorithm	A precise, step-by-step set of instructions used to solve a problem or achieve an objective.
Forward	To move in the direction that one is facing or travelling.
Backward	To move in the opposite direction to which one is
Right turn	To move the object in a clockwise direction
Left turn	To move the object in an anti-clockwise direction.

Visuals

What is the program supposed to do?

What is the problem?

What do I need to change in the code to fix it?

Does it work now?

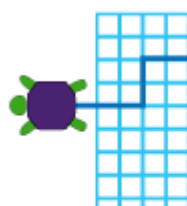
If it doesn't do what it is supposed to do, what have I done wrong and how can I fix it?



Guard the Castle



Vehicles



Turtle

Open the main menu

Save your work

Watch the instruction video

Open design mode in 2Code

Switch to code mode in 2Code

A repeat code block

A timer code block

An object property