

Question - Can we use programming on a new application?



What I should already know: Following, giving and debugging instructions, programming beebots, understanding algorithms.

What will I learn?

1. Can we explore a new application?
2. Can we create an animation?
3. Can we use characters as buttons?
4. Can we follow an algorithm?
5. Can we plan and use code to create an algorithm?

Key Vocabulary

- Algorithm** - A clear set of instructions to carry out a task.
Animation - Pictures or photographs in a sequence to give the illusion of movement.
Bug - An error or mistake in computer code.
Code (computer) - A set of instructions written in programming language to tell a computer what to do.
Code (verb) - To write in a programming language (code).
Data - Information used for a specific purpose or investigation.
Debug - To fix the error in code.
Digital Content - Information and media such as videos or pictures stored on a computer.
Error - A mistake.
Essential - absolutely necessary and extremely important.
Icon - A small image which represents someone or something.
Imitate - To copy.
Instructions - A list of commands and directions on how to do something.
Loop - A repeated sequence of instructions.
Repeat - To do the same again.
Scratch Jr - A simple, block based application in which you can instruct Scratch, the cat.

Key Skills (National Curriculum)

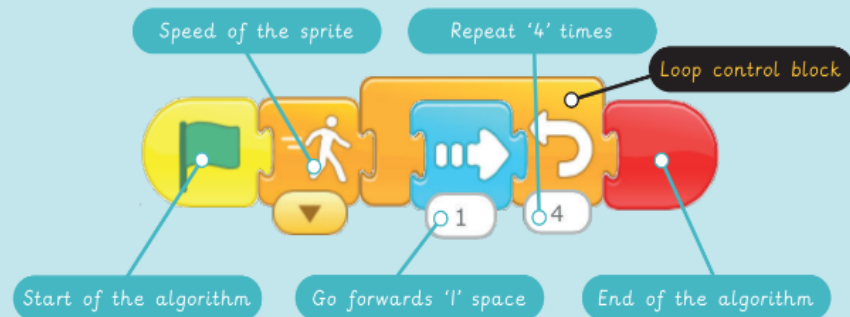
Pupils will be taught:

- 1) What algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.
- 2) Create and debug simple programs.
- 3) Use logical reasoning to predict the behaviour of simple programs.
- 4) Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems: solve problems by decomposing them into smaller parts.
- 5) Use sequence, selection and repetition in programs; work with variables and various forms of input and output.
- 6) Use logical reasoning to explain

Sequence - A set order or pattern for something to follow.

how simple algorithms work and to detect and correct errors in algorithms and programs.

A Scratch JR algorithm with a loop:



Scratch JR is an application for tablets.



Code blocks let you build algorithms:

Triggering blocks:



Motion blocks:



Looks blocks:



Sound blocks:



End blocks:



Control blocks:



Links to other areas of the curriculum : Speaking and Listening, Writing, Maths (position & Direction),