

How are computer games made?



Key vocabulary

backdrop	The background in Scratch that you can program
conditionals	These tell a computer to run different codes depending on the conditions
coding	Creating, designing and building a computer program to accomplish a goal
command	An instruction for the computer
for loop	Grouping tasks together and giving them a number of times to run together
function	A set of commands that you name and run together to group tasks automatically
repeat forever	To keep doing a set of commands until the code is stopped

Coding Yr3



Computing skills

Empowered Learner:



- Set goals to achieve using technology
- Begin to understand how technology works

Computing

- Design
- Detect
- Break p
- Create



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Key learning

- Use Swift Playgrounds to learn about functions.
- Learn how to change and code in Hopscotch.
- Learn how to use conditionals, loops and functions in Hopscotch.
- Create a game using loops, conditionals and functions

```
func tieMyShoe() {
  loop()
  swoop()
  pull()
}
```

Give your function its behavior by adding commands inside the curly braces.

Make a Block

Block name

Add an input number or text

Add an input boolean

Add a label

☐ Run without screen refresh

Cancel OK

Add the commands to repeat within the curly braces.

```
for eachSeed in 1...4 {
  makeHole()
  placeSeed()
  moveFiveInchesForward()
}
```



Coding - Our Learning Journey

Year 1

- Using simple commands to move and change direction
- Editing characters and backgrounds

Year 2

- Using repeat and forever loops
- Put a range of codes together to make a sequence
- Debugging simple programmes

Year 3

- Use commands, for loops and conditionals
- Use different controls and conditionals including when and if
- Use sensors and code them to work in different ways

Year 4

- Create and edit functions
- Include functions in a game on Scratch
- Use logic for conditional commands, including 'else' command

Year 5

- Use comparison and logical operators in a range of programmes
- Create different variables for speed and proximity sensors in robots
- Code sensors for different purposes

Year 6

- Use variables to keep score in a created game
- Create a game using a range of functions, loops, operators and variables
- Begin to use Python to code Micro:Bits

