How are computer games made?

St. Peter's CE Primary Academy

Coding Yr3

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.
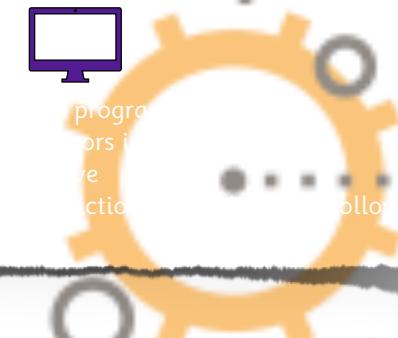- Create a game using loops, conditionals and functions

Computing skills

Empowered Learner:

- Set goals to achieve using technology
- Begin to...

Comput...

- Design,
- Detect
- Break p...
- Create

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

```
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()
}
```
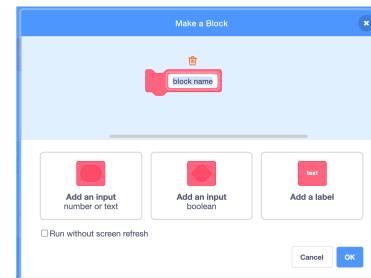
Coding – Our Learning Journey

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