

How do computer games decide who wins?

Coding Y6

Key learning

- Use Swift Playgrounds to learn about Variables (Learn to Code 2)
- Use variables in Scratch to create a quiz
- Add a score to a game using variables
- Create own game using variables, operators, functions and loops

Empowered Learner:

- Identify a range of different ways to troubleshoot and fix technology problems

Computational thinking

- Collect data to solve problem through developing a solution
- Use a range of steps to solve a problem
- Design a solution that can be used to solve a specific problem



Key vocabulary

| | |
|---------------------|--|
| AND (&&) operator | This will run a code only if all conditions are true |
| comparison operator | A type of operator that compares variables and runs code dependent on their relationship |
| conditionals | These tell a computer to run different codes depending on the conditions |
| debugging | Finding and fixing problems in a computer program or algorithm |
| function | A set of commands that you name and run together to group tasks automatically |
| Logical operator | A type of operator that you can use to make conditional code more specific |
| message | A way to control the timing of events and communicate between Sprites and backgrounds |
| OR () operator | This will run a code if at least one condition is true |
| NOT (!) operator | This operator changes a condition to use opposite |
| variable | A value that can be changed or retrieved by your programming |

SCRATCH

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