

# How do computers make decisions?

Coding Y5

## Key learning

- Use Swift Playgrounds to learn about operators
- Understand comparison and logical operators
- Use operators in Scratch to edit a game and add them in
- Come up with own game using operators in Scratch

## Computing concepts

### Empowered learner

- Troubleshoot my own technology problems in different ways

### Computational thinking

- Detect and debug errors in algorithms
- Design and edit code to achieve specific goals
- Use sequence, selection and loops to create specific tasks



## 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                           |
| 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            |
| 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  |

Each of these three operators changes conditions in its own specific way:

AND      &&  
OR        ||  
NOT      !

SCRATCH

## Coding - Our Learning Journey

### Year 1/2

- Using simple commands to move and change direction
- Editing characters and backgrounds
- Using repeat functions
- Debugging simple programmes

### Year 3/4

- Using different controls and conditionals - when and if commands
- Creating and editing functions
- Detecting and correct simple algorithm errors

### Year 5/6

- Using a range of sequences and functions to accomplish specific goals in the most efficient way
- Using comparison and logical operators in a range of programmes
- Design, write and debug computer games

