

## Prior Learning

- I can use sequence, selection and repetition in my code.
- I know what 'objects', 'actions' and 'events' are.
- I can create a programme using buttons.
- I can debug my code to fix errors.
- I can use a timer in my programme.
- I understand what 'if' and 'else' statements are.



Open design mode in 2Code.

## Sticky Knowledge

- I can simplify some code.
- I can create a playable game.
- I understand what a simulation is.
- I can program a game using 2Code.
- I know what decomposition and abstraction are in computer science.
- I understand what a function is and how functions work in code. I understand what the different variables types are and how they are used differently.
- I know how to create a string.
- I understand what concatenation is and how it works.



Switch to code mode in 2Code.

## Key Vocabulary

abstraction	A way of de-cluttering and removing unnecessary details to get a program functioning.
action	The way that objects change when programmed to do so. For example, move.
algorithm	A precise step by step set of instructions used to solve a problem or achieve an objective.
concatenation	The action of linking a mixture of strings, variable values and numbers together in a series.
debug	Fixing code that has errors.
decomposition	A method of breaking down a task into easier components.
function	A block or sequence of code that you can access when you need it.
input	Information going into the computer.
nesting	Where coding commands are put inside other commands.
object	Items in a program that can be given instructions to move or change.
output	Information that comes out of the computer. E.g. sound.
repeat	This command can be used to make a block of commands run a set number of times.
sequence	This when a computer program runs commands in order.
selection	A computer will choose which bit of code to run depending on a condition. In 2Code, this is achieved using 'if' or 'if/else' statements.
variable	A named area in a computer memory. A variable has a name and a value. Variables are used in programming to keep track of things that can change when a program is running.