



# Coding

## Key Learning

- To understand ways to use cloning in 2Code.
- To explore the use of hotspots in 2Code.
- To understand the different options of generating user input in 2Code.
- To use flowcharts to test and debug a simulation.
- To use program design documentation to produce a program.
- To understand how 2Code can be used to make a text-based adventure game.

## Key Questions

- What is a function in coding? Give an example that you have used in 2Code Gorilla.
- In 2Code Gorilla, how can a program receive user input?
- What variable types can you create in 2Code?

Abstraction	A way of decluttering and removing unnecessary details in order to code the main task of the program.
Algorithm	A precise, step-by-step set of instructions used to solve a problem or achieve an objective.
Attribute	A detail about an object in a program that can be changed. For example, its name, scale or position.
Clone	A variable type that makes exact copies of an object.
Concatenation	The action of linking things together in a series.
Decomposition	A method of breaking down a task into manageable components. This makes coding easier as the components can then be coded separately and then brought back together in the program.
Flowchart	A diagram that uses specifically shaped, labelled boxes and arrows to represent an algorithm.
Function	A named group of commands that a program can run when called by name, reducing the need to rewrite code repeatedly.
Hotspot	A type of object that can be used to make a specific area of the screen react to actions such as objects entering or leaving the area.
Prompt	A question or request asked in coding to obtain information from the user in order to select which code to run.
Random	Generating values that are unpredictable within a specified range or set. In programming, this is used to introduce variability and unpredictability into the code's behaviour.
Repeat Over	A command which repeats commands nested within it continuously as a loop.
Sequence	When a computer program runs commands in order
Simulation	A model that represents a real or imaginary situation. Simulations can be used to explore options and to test predictions.
String	Text or a combination of text characters and numbers: A sequence of characters, which could form words, phrases or sentences.
Tag Attribute	A word attribute given to objects so that code can be written for multiple objects at once to write efficient code.
User Interface	The part of a computer program that you see and use on the screen. It is everything that helps the user tell the computer what to do and shows the user what the computer is doing.

Key Images

Using clones

Variables

Using hotspots

Flowchart symbols

Functions

Key Resources

2Code

2Chart