# Unit: 1.7
Coding

Key Learning

- To understand what instructions are and predict what might happen when they are followed.
- To use code to make a computer program.
- To understand what object and actions are.
- To understand what an event is.
- To use an event to control an object.
- To begin to understand how code executes when a program is run.
- To understand what backgrounds and objects are.
- To plan and make a computer program.

Key Resources

purple mash

2Dos

Free code chimp

Tools
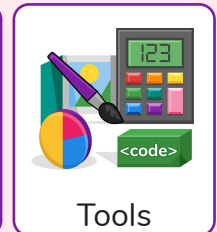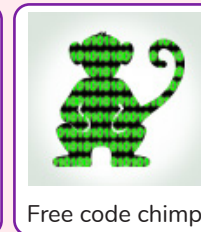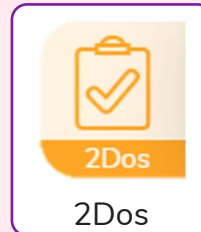
Key Vocabulary

Action
Types of commands which are run on an object. They could be used to move an object or change a property.

Code
Instructions written using symbols and words that can be interpreted by a computer.

Event
Something that causes a block of code to be run.

Algorithm
A precise step by step set of instructions used to solve a problem or achieve an objective.

Command
A single instruction in a computer program.
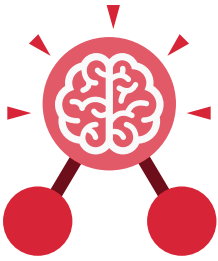
Execute
To run a computer program.

Debug/Debugging
Finding a problem in the code and fixing it.

Input
Information going into the computer. Can include moving or clicking the mouse, using the keyboard, swiping and tilting the device.

Background
The part of the program design that shows behind everything else. It sets the scene for the story or game.

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Key Vocabulary

Instructions
Detailed information about how something should be done.

Properties
All objects have properties that can be changed in design or by writing code e.g. image, colour and scale properties.

Scene
The background and objects together create a scene.

Object
An element in a computer program that can be changed using actions or properties.

Run
To cause the instruction in a program to be carried out.

Sound
This is a type of output command that makes a noise.

Output
Information that comes out of the computer e.g. sound.

Scale
The size of an object in 2Code.

When clicked
An event command. It makes code run when you click on something (or press your finger on a touchscreen).

Key Questions

What is coding?

Writing instructions in a way that a computer can interpret them to make a program.

Why is it useful to design before coding?

It helps you to get a clear idea of what you want your program to do. You can use the design to decide which objects you need to add, what to call them and what actions they should perform.

How can you make characters move in a 2Code program?

In design mode, add a character. Change properties such as the name and scale. Exit from design mode and drag your character's code block into the coding window. From the properties menu, select right, left, up or down.

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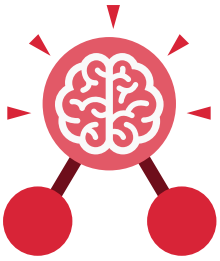
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Key Images

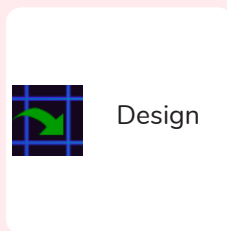|			
Open, close or share a file	Save your work	Watch the instruction video	Get a hint when you are stuck in 2Code
Open design mode in 2Code	Switch to code mode in 2Code	The background object	A 'when clicked' code block
An object property	Sound output block		

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