Unit: 1.2
Grouping and Sorting

Key Learning

- To sort items using a range of criteria.

- To sort items on the computer using the 'Grouping' activities in Purple Mash.

Key Resources

purple mash

2Do It Yourself

Key Questions

In what ways can we sort objects?

We can sort objects by different criteria. These include the size of the objects, the colour of the objects or the number of sides the object has. The criteria will depend on the type of objects being sorted.
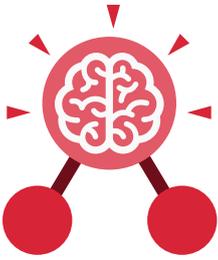
Key Vocabulary

Criteria
A way in which something is judged.

Groups
Objects arranged and put together because they have features in common.

Sort
Put things together by features they have in common.

2 simple

Unit: 1.3
Pictograms

Key Learning

- To understand that data can be represented in picture format.

- To contribute to a class pictogram.

- To use a pictogram to record the results of an experiment.

Key Vocabulary

Collect Data
Gathering facts and information.

Compare
Looking at what is the same and what is different.

Data
A collection of information, used to help answer questions.

Pictogram
A diagram that uses pictures to represent data.

Record Results
Writing down what you have found out.

Title
The name given to a piece of work.
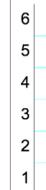
Key Resources

purple mash

2Connect

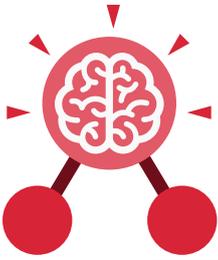2Count

Key Images

Open, Close and Share

Add or delete columns

Frequency

Add of delete objects from the Pictogram

2simple

Unit: 1.5
Maze Explorers

Key Learning

- To understand the functionality of the direction keys.
- To understand how to create and debug a set of instructions (algorithm).
- To use the additional direction keys as part of an algorithm.
- To understand how to change and extend the algorithm list.
- To create a longer algorithm for an activity.
- To set challenges for peers.
- To access peer challenges set by the teacher as 2Dos.

Key Resources

purple mash

2Go

Key Vocabulary

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

Direction
The path that something travels. For example, a robot moving forwards, backwards or diagonal.

Route
A path an object or thing takes to get somewhere.

Challenge
A task to be completed.

Instruction
Detailed information about how something should be done or operated.

Undo
If we make a mistake, we can press the undo button.

Command
An action such as left command.

Left and Right
A position which relates to something. For example, make the fish move left of the screen.

Unit
A unit such as make the turtle move 2 units (squares).
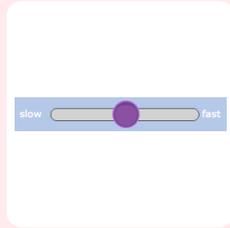
2simple
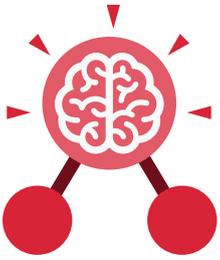
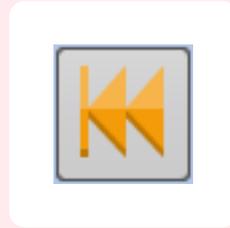# Unit: 1.5
Maze Explorers

Key Images

Open, close or share a file

Change the speed in which the screen object moves
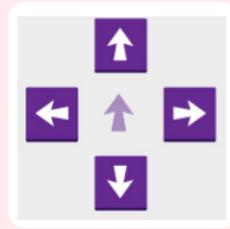
Rewind an instruction

Undo an instruction

Change the settings in 2Go

Change the colour of the path that the object leaves in 2Go

Control the direction in which the object moves

Key Questions

What is 2Go?

2Go is a program that allows you to move an object around the screen using either the arrows or by creating a simple sequence of instructions.

How do I undo a mistake on 2Go?

In 2Go, you can either click on the undo button to go back one step or the rewind button to go back to the start of the challenge.

2simple
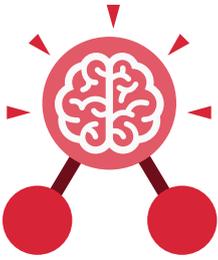
Unit: 1.7
Coding

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
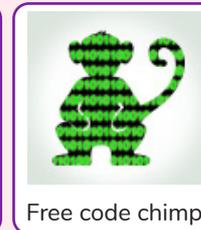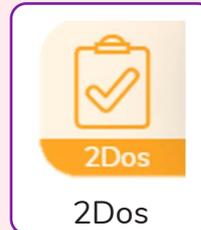
Key Vocabulary

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

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

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

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

Command
A single instruction in a computer program.

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

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

Execute
To run a computer program.

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

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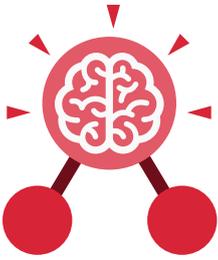
Unit: 1.7
Coding

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.
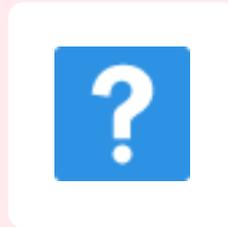
2simple
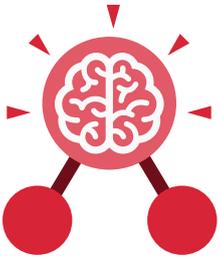
Unit: 1.7
Coding

Key Images
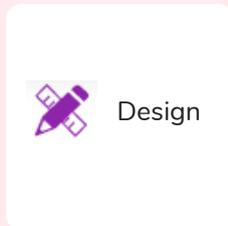
Open, close or share a file

Save your work
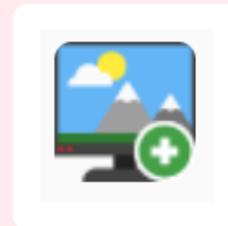
Watch the instruction video

Get a hint when you are stuck in 2Code

Open design mode in 2Code
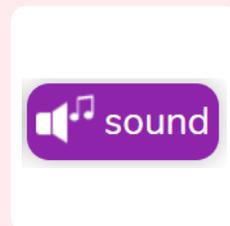
Switch to code mode in 2Code

The background object

A 'when clicked' code block

An object property

Sound output block

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