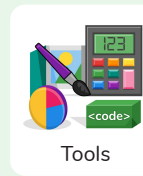


Unit: 3.1 Coding

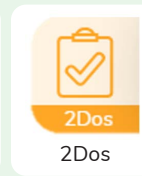
Key Learning

- To understand what a flowchart is and how flowcharts are used in computer programming.
- To understand that there are different types of timers and select the right type for purpose.
- To understand how to use the repeat command.
- To understand the importance of nesting.
- To design and create an interactive scene.

Key Resources



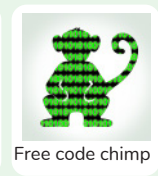
Tools



2Dos



2Chart



Free code chimp

Key Vocabulary

Action

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

Alert

This is a type of output. It shows a pop-up of text on the screen.

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.

Blocks of Command

A series of a few code instructions.

Button

An object that can trigger an event in response to being clicked.

Collision Detection

Detecting when two characters on the screen touch each other.

Command

A single instruction in a computer program.

Debug/Debugging

Looking for any problems in the code, fixing and testing them.

Develop

The process of designing programs and writing code.

Event

Something that causes a block of code to be run.

Execute

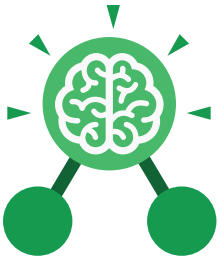
To run a computer program.

Flowchart

A diagram which represents an algorithm.

Nesting

When you write a command inside something else e.g. a block of commands could be nested inside a timer.



Unit: 3.1

Coding

Key Vocabulary

Object

An element in a computer program that can be changed using actions or properties. In 2Code, buttons, characters and vehicles are types of objects.

Output

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

Plan

Set out what you would like the program to do before it is written.

Predict

Say what you think will happen when a piece of code is run.

Procedure

A set of coded instructions that perform a certain task.

Properties

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

Repeat

This command can be used to make a block of commands run a set number of times or forever.

Sequence

when a computer program runs commands in order.

Scene

A visual aspect of a program.

Sound

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

Test

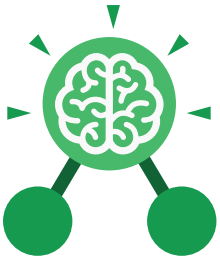
When code is run to check that it works correctly.

Timer

Use this command to run a block of commands after a timed delay or at regular intervals.

Values

Usually a number, a single character or a string of characters.



Unit: 3.1

Coding

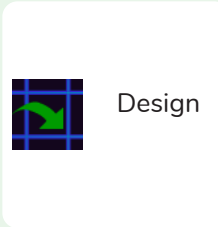
Key Images



Open, close or share a file.



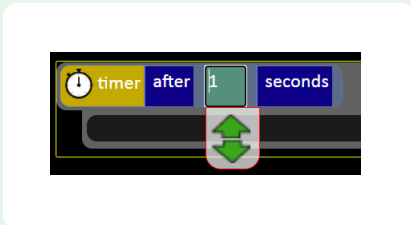
Save your work.



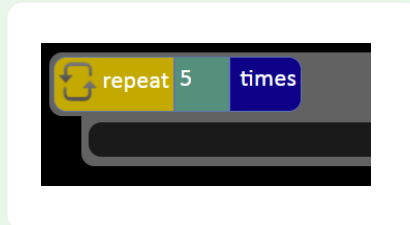
Open design mode in 2Code.



Switch to code mode in 2Code.



A timer code block.



Repeat block.

Key Questions

Why is it useful to use a flowchart to design a computer program?

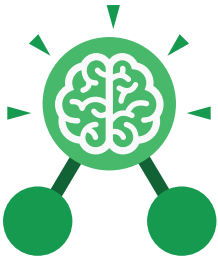
Using a flowchart to design a computer program is helpful as you can see it in its simplest form as inputs and outputs. You can see where the program is going which will prevent mistakes when creating the code.

What does repeat mean in computer programming?

Using the repeat command will make a block of commands run for a set number of times or forever. This saves rewriting the code many times.

What is the difference between 'timer after' and 'timer every'?

A 'timer after' means after a certain amount of seconds, the action will occur. 'Timer every' means that the action will re-occur every certain amount of seconds on a loop.



Unit: 3.2 Online Safety

Key Learning

- To know what makes a safe password.
- To learn methods for keeping passwords safe.
- To understand how the Internet can be used in effective communication.
- To understand how a blog can be used to communicate with a wider audience.
- To consider the truth of the content of websites.
- To learn about the meaning of age restrictions symbols on digital media and devices.

Key Resources

purple
mash



2Dos



2Connect



2Publish Plus



2Blog



2Write

Key Questions

What is a password and why should we keep them safe?

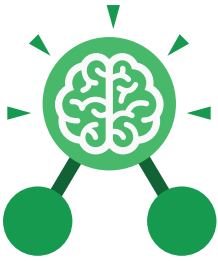
A password is a secret word or phrase that allows a user to access a website. Passwords are like toothbrushes in that they should not be shared with anyone else.

Is everything I read on the Internet true?

Just because something is on the Internet doesn't mean that it is true. Some people create spoof websites that pretend to be something else such as a bank website or to provide misleading information.

How do I know if I am old enough to play a computer game?

Computer games, like films, are often not suitable for children. PEGI ratings will show how old a person must be to play a game.



Unit: 3.2

Online Safety

Key Vocabulary

Password

A secret word, phrase or combination of letters, numbers and symbols that must be used to gain admission to a site or application such as a website.

Blog

A regularly updated website or web page, typically one run by an individual or small group, that is written in an informal or conversational style.

Website

A set of related web pages located under a single name.

Internet

A global computer network providing a variety of information and communication facilities, consisting of interconnected networks and computers.

Concept map

A diagram that shows how different objects or ideas are related and connected.

Webpage

A page online that makes up one screen of a website.

Spoof website

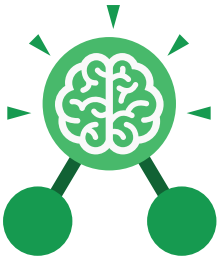
A website that uses dishonest designs to trick users into thinking that it represents the truth.

Username

An identification used by a person with access to a computer, network, or online service.

PEGI rating

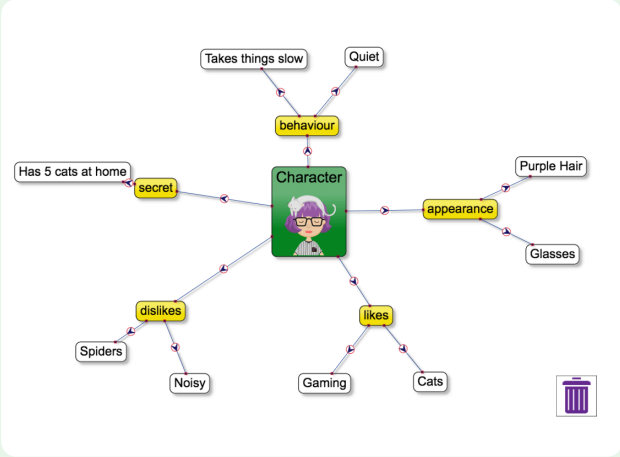
A rating that shows what age a game is suitable for.



Unit: 3.2

Online Safety

Key Images



2Connect screen with nodes added



2Blog header

Username and Password screen