

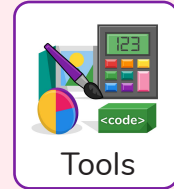
## Unit: 1.1

# Online Safety and Exploring Purple Mash

### Key Learning

- To log in safely.
- To learn how to find saved work in the Online Work area and find teacher comments.
- To learn how to search Purple Mash to find resources.
- To become familiar with the icons and types of resources available in the Topics section.
- To start to add pictures and text to work.
- To explore the Tools and Games section of Purple Mash.
- To learn how to open, save and print.
- To understand the importance of logging out.

### Key Resources



Paint Projects



2Connect



2Count



2Explore

### Key Vocabulary

#### Log in

Using a username and password to access a system.

#### Username

A name that is used by a person to access an online site.

#### Password

A series of letters, numbers and special characters that is entered after the username to access an online site. In Purple Mash, this can also be a series of pictures.

#### Avatar

A digital picture to represent someone.

#### My Work

The place on Purple Mash where your work is stored. Only you and your teachers can access this.

#### Topics

The area on Purple Mash that contains ready-made resources.

#### Log out

Leaving a computer system.

#### Notification

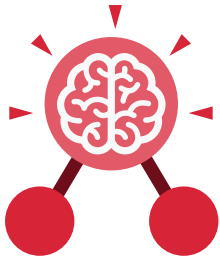
A system that lets you know if you have something to look at. On Purple Mash this is shown by a bell.

#### Tools

The area on Purple Mash with the different learning apps.

#### Save

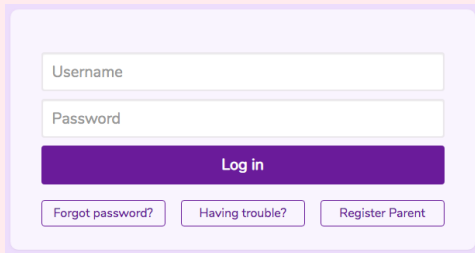
Store your work as you create something so it can be accessed later.



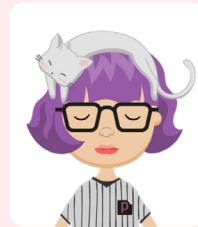
## Unit: 1.1

# Online Safety and Exploring Purple Mash

### Key Images



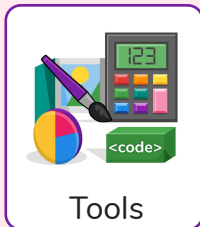
Log in Screen



Avatar

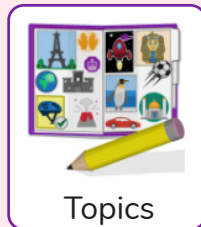


Save your work



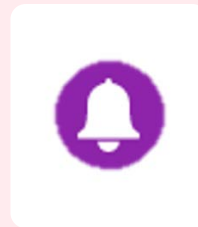
Tools

Tools section of Purple Mash



Topics

Topic section of Purple Mash



This picture shows you if you have any notifications



The area of Purple Mash where your work is stored

### Key Questions

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

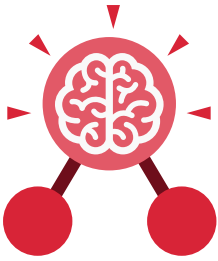
A password is a secret word or phrase that allows a user to access a website. Passwords are like toothbrushes in that they should not be shared with anyone else.

#### What is a digital avatar?

In Purple Mash, an avatar is a picture you create in the software to represent you. It is safer to use an avatar on the Internet than have a picture of yourself.

#### Where is my work stored on Purple Mash?

In Purple Mash, most of the work you save will be saved in the My Work section of Purple Mash. The only person that can see this work is the teacher and you.



## 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



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.

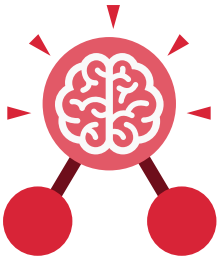
#### Key Vocabulary

##### Sort

Put things together by features they have in common.

##### Criteria

A way in which something is judged.



## 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

#### Pictogram

A diagram that uses pictures to represent data.

#### Data

Facts and statistics collected together that can provide information.

#### Collate

Collect and combine (texts, information, or data).

### Key Resources

purple  
mash



2Connect



2Count

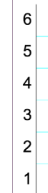
### Key Images



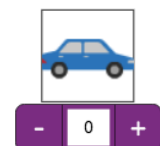
Open, Close and Share



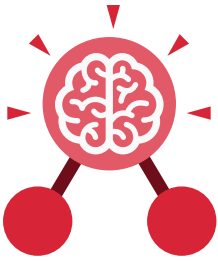
Add or delete columns



Frequency



Add or delete objects from the Pictogram



## Unit: 1.4 Lego Builders

### Key Learning

- To compare the effects of adhering strictly to instructions to completing tasks without complete instructions.
- To follow and create simple instructions on the computer.
- To consider how the order of instructions affects the result.

### Key Vocabulary

#### Instruction

Information about how something should be done.

#### Algorithm

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

#### Computer

An electronic device for storing and processing data.

#### Program

To provide (a computer or other machine) with coded instructions.

#### Debug

To find and remove errors from computer hardware or software.

### Key Resources



purple  
mash



Paint Projects

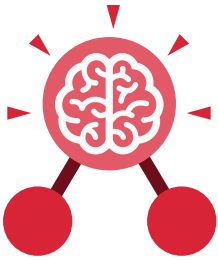
### Key Questions

#### What is an instruction?

An instruction takes you through something step by step so that you can successfully complete a task.

#### Why do we need to debug code?

When you write code, it won't always work correctly first time. When you search for the errors and correct them, this is known as debugging.



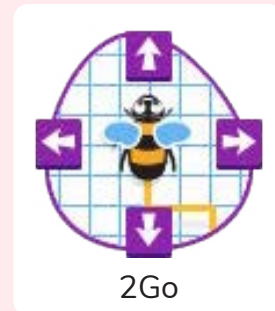
## Unit: 1.5

### 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



#### Key Vocabulary

##### Direction

A course along which someone or something moves.

##### Rewind

Move back several steps or to the start.

##### Left turn

To move the object in an anti-clockwise direction.

##### Challenge

A task or situation that tests someone's abilities.

##### Forward

To move in the direction that one is facing or travelling.

##### Debug

To find and remove errors from computer hardware or software.

##### Arrow

A mark or sign resembling an arrow, used to show direction or position.

##### Backwards

To move in the opposite direction to which one is facing.

##### Instruction

Information about how something should be done.

##### Undo

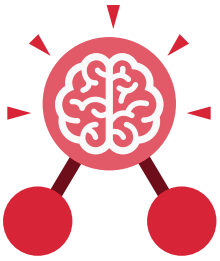
Cancel or reverse the instruction.

##### Right turn

To move the object in a clockwise direction.

##### Algorithm

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



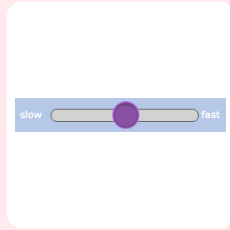
## Unit: 1.5

### Maze Explorers

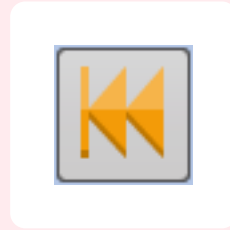
#### Key Images



Open, close or share a file



Change the speed in which the screen object moves



Rewind an instruction



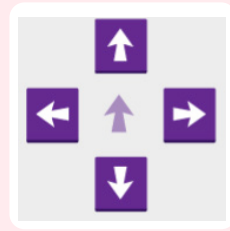
Undo an instruction



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

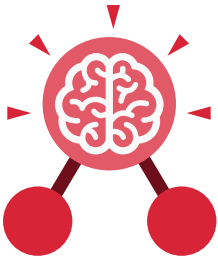
#### Key Questions

##### 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.



## Unit: 1.6

# Animated Story Books

### Key Learning

- To introduce e-books and the 2Create a Story tool.
- To add animation to a story.
- To add sound to a story, including voice recording and music the children have composed.
- To work on a more complex story, including adding backgrounds and copying and pasting pages.
- To share e-books on a class display board.

### Key Resources



### Key Vocabulary

#### Animation

Process of giving the illusion of movement to drawings and models.

#### Font

The style of text used in a piece of writing on the computer or tablet.

#### Sound Effect

A sound other than speech or music made for use in a play, film or computer file.

#### E-Book

A book that can be read on the computer or on a tablet.

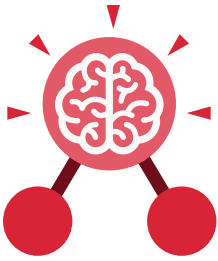
#### File

A piece of work on the computer.

#### Display Board

A way to share your work on Purple Mash.





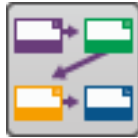
## Unit: 1.6

### Animated Story Books

#### Key Images



Open, close or share a file



Plan out your story



Play your story



Add animation and sounds to the story



Choose a story background



Undo or redo the last action



Choose the font for the story



Copy and paste

#### Key Questions

##### What is 2Create a Story?

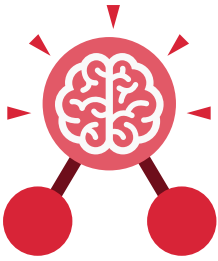
With 2Create a Story, you can create e-books including animated pages, sounds, narration and music.

##### What is an animated story?

An animated story is a story where the images in the foreground can move in a variety of ways.

##### How can I make my story better?

As well as adding animation to the story, it can be improved by adding sounds or sound effects to the different pages.



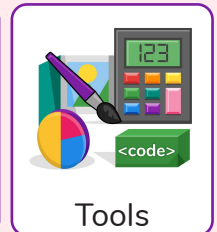
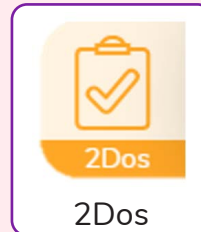
## Unit: 1.7

### 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



#### 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.

##### Background

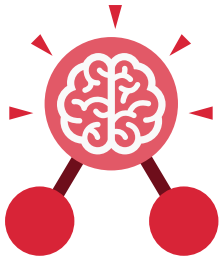
The part of the program design that shows behind everything else. It sets the scene for the story or game.

##### 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.



## 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?

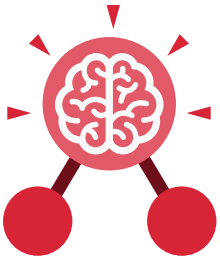
Writing instructions in a way that a computer can interpret them to make a program.

##### 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.



# 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



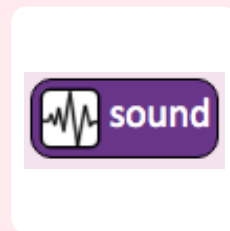
The background object



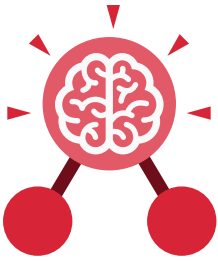
A 'when clicked' code block



An object property



Sound output block



## Unit: 1.8

### Spreadsheets

#### Key Learning

- To know what a spreadsheet program looks like.
- To locate 2Calculate in Purple Mash.
- To enter data into spreadsheet cells.
- To use 2Calculate image tools to add clipart to cells.
- To use 2Calculate control tools: lock, move cell, speak and count.

#### Key Resources



2Calculate

#### Key Questions

##### What does a spreadsheet look like?

It has a grid of cells. These are in rows and columns.

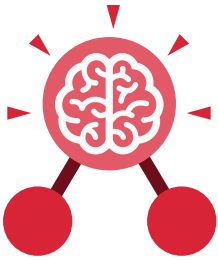
The cells can be coloured, and you can type into them. You can use the toolbox to do different things with the data in the cells.

##### How could you use a spreadsheet to add up values?

You can enter numbers and operators such as +, -, x in the cells. Entering an equals sign in the correct cell will perform calculations.

##### How could you use the count and speak tools?

The count tool will count the number of cells containing the same value or colour as it. The speak tool will say this number each time you click on the cell or the number changes.



## Unit: 1.8

# Spreadsheets

### Key Vocabulary

#### Arrow keys

On a standard keyboard these can be used to move around the cells of a spreadsheet.

#### Backspace key

Use this key to delete the character before the current cursor position.

#### Cursor

An indicator on a computer screen identifying the point that will be affected by input from the user. Often a blinking vertical line.

#### Columns

Vertical reference points for the cells in a spreadsheet.

#### Cells

An individual section of a spreadsheet grid. It contains data or calculations.

#### Clipart

Simple pictures and symbols available for computer users to add to documents.

#### Count Tool

In 2Calculate, this counts the number of cells with a value that matches the value of the cell to the left of the tool.

#### Delete key

Use this key to remove the contents of a cell.

#### Image Toolbox

Use this to insert images into cells.

#### Lock tool

This tool prevents cell values being changed.

#### Move cell tool

This tool makes a cell's contents moveable by drag-and-drop methods.

#### Rows

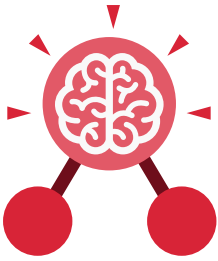
Vertical reference points for the cells in a spreadsheet.

#### Speak Tool

This tool will speak the contents of a cell containing a number each time the value changes.

#### Spreadsheet

A computer program that represents information in a grid of rows and columns.



# Unit: 1.8

## Spreadsheets

### Key Images



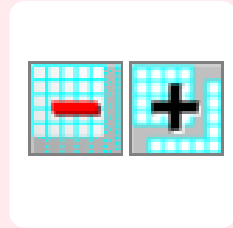
Open, close or share a file



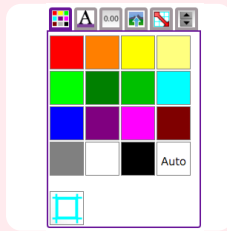
Save your work



Open a previously saved file



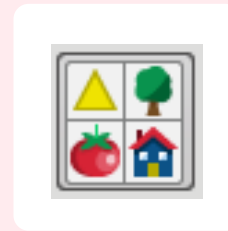
Increase or decrease spreadsheet size



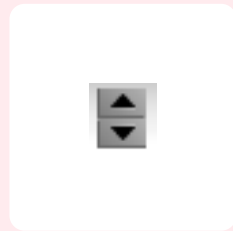
The 2Calculate toolbox



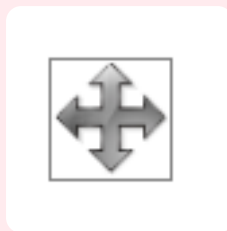
The 2Calculate image toolbox



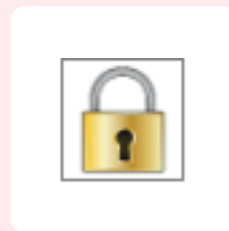
Clipart Picker



The 2Calculate control toolbox



Move cell tool



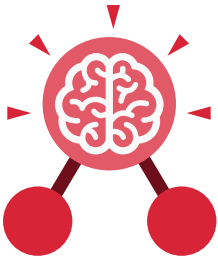
Lock cell tool



Speak tool



Count tool



## Unit: 1.9

# Technology Outside School

### Key Learning

- To walk around the local community and find examples of where technology is used.
- To record examples of technology outside school.

### Key Vocabulary

#### Technology

Science and engineering knowledge put into practical use to solve problems or invent useful tools.

### Key Resources



2Publish Plus

### Key Questions

#### What is technology?

Technology is the use of knowledge to invent new devices or tools. Throughout history, technology has made people's lives easier.

#### How does technology make our lives easier?

Technology has made life easier in many areas. It is now much easier to communicate around the world. Messages that used to take weeks to reach the sender can now be sent and received in seconds. We are surrounded by technology from your toys, to machines in your house to systems that control traffic and planes.