# Knowledge Organiser Online Safety/Algorithms/Questioning Year 1/2

## What I have already learnt ELG's

- I show resilience and perseverance in the face of a challenge.
- I can talk about the different factors that support their overall health and wellbeing: -sensible amounts of 'screen time'.
- I have developed my small motor skills so that I can use a range of tools competently, safely and confidently.
- I have used IT equipment to explore, use and refine a variety of artistic effects to express their ideas and feelings.
- I have tried new activities and show independence, resilience and perseverance in the face of challenge.
- I have learnt the reasons for rules, know right from wrong and try to behave accordingly.
- I know how to safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function

## Recall and Remember

Quiz Unit 1.1 Online Safety
Purple Mash by 2Simple
Quiz Unit 1.5 Maze Explorers
Purple Mash by 2Simple
Quiz Unit 2.4 Questioning
Purple Mash by 2Simple

## What I will have learnt by the end of my Key Stage

- I will know how what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions
- I will know how to create and debug simple programs
- I will know how to use technology purposefully to create, organise, store, manipulate and retrieve digital content
- I will know common uses of information technology beyond school
- I will know how to use technology safely and respectfully, keeping personal information private; identify where to go for help and support when I have concerns about content or contact on the internet or other online technologies

## Key skills I will learn/use



## Key Concepts/Strands
- Computing Science
- Information Technology
- Digital Literacy

## My skills and knowledge that I may use from other subjects
**Literacy**- I can use my literacy skills to read and input data
**Mathematics**- I can use my mathematical skills to read and interpret diagrams and graphs

## Opportunities for teaching Diversity, Equality (including protected characteristics) and expanding Cultural Capital

Show children examples of contrasting countries and cultures that do not have the same opportunities as we have
- Educational video: The Third World for kids | Happy Learning
Look at what technology will look like in the future.
- Technology of the Future | Safe Search (safesearchkids.com)

## Key Knowledge

- To understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions
- To create and debug simple programs
- To use logical reasoning to predict the behaviour of simple programs
- To use technology purposefully to create, organise, store, manipulate and retrieve digital content
- To recognise common uses of information technology beyond school
- To use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

## What I will have learnt by the end of this unit

### Unit 1.1 Online Safety
- To log in safely and understand why that is important. • To create an avatar and to understand what this is and how it is used.
- To save work to the My Work area and understand that this is private space.
- To learn how to find saved work in the Online Work area.
- To learn how to search Purple Mash to find resources.
- To start to add pictures and text to work.
- To explore the Tools area of Purple Mash and to learn about the common icons used in Purple Mash for Save, Print, Open, New.
- To understand the importance of logging out when they have finished.

### Unit 1.5 Maze Explorers
- To understand the functionality of the basic direction keys
- To be able to use the direction keys to complete the challenges successfully
- To understand how to create and debug a set of instructions (algorithm).
- To understand how to change and extend the algorithm list.
- To create a longer algorithm for an activity.

### Unit 2.4 Questioning
- To show that the information provided on pictograms is of limited use beyond answering simple questions
- To use yes/no questions to separate information
- To construct a binary tree to separate different items.
- Use 2Question (a binary tree) to answer questions
- To use a database to answer more complex search questions.
- To use the Search tool to find information.

# Knowledge Organiser Online Safety/Algorithms/Questioning Year 1/2

## Key Vocabulary Unit 1.1 Online Safety

**Alert**
A system that lets you know if you have something to look at.

**Device**
A piece of electrical equipment made for a purpose.

**Log in**
Using a username and password to access a system.

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

**Avatar**
A digital picture to represent someone.

**File Name**
The name given to an online piece of work.

**Log out**
Leaving a computer system.

**Notification**
A message telling you about something.

**Private**
Keeping information restricted from other people.

**Button**
An area where you click to make something happen.

**Icon**
An image on a web page that you can click on to navigate to somewhere.

**Menu**
A button which gives the user different options.

**Password**
A series of letters, numbers and special characters that is entered after the username to access an online site.



Key Resources: purple mash, Tools, Paint Projects, 2Connect, 2Count, 2Explore

## Key Vocabulary Unit 1.5 Maze Explorers

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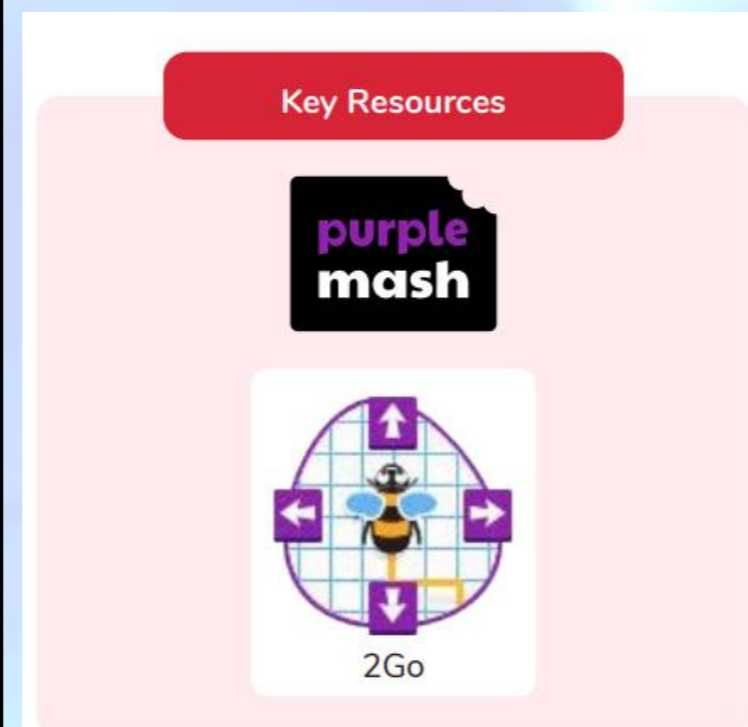If we make a mistake, we can press the undo button.

**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).



Key Resources: purple mash, 2Go

## Key Vocabulary Unit 2.4 Questioning

**Binary**
Tree A simple way of sorting information into two categories.

**Field**
A single piece of data in a database which makes up a record.

**Record**
An item in a database with a variety of information about a specific entry.

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

**Pictogram**
A diagram that uses pictures to represent data.

**Search**
Looking for specific information. On a database, you can use the 'Find' tool.

**Database**
A computerised system that makes it easy to search, select and store information.

**Question**
A sentence written or spoken to find information.

**Sort**
Put things together by features they have in common.



Key Resources: purple mash, 2Count, 2Investigate, 2Question