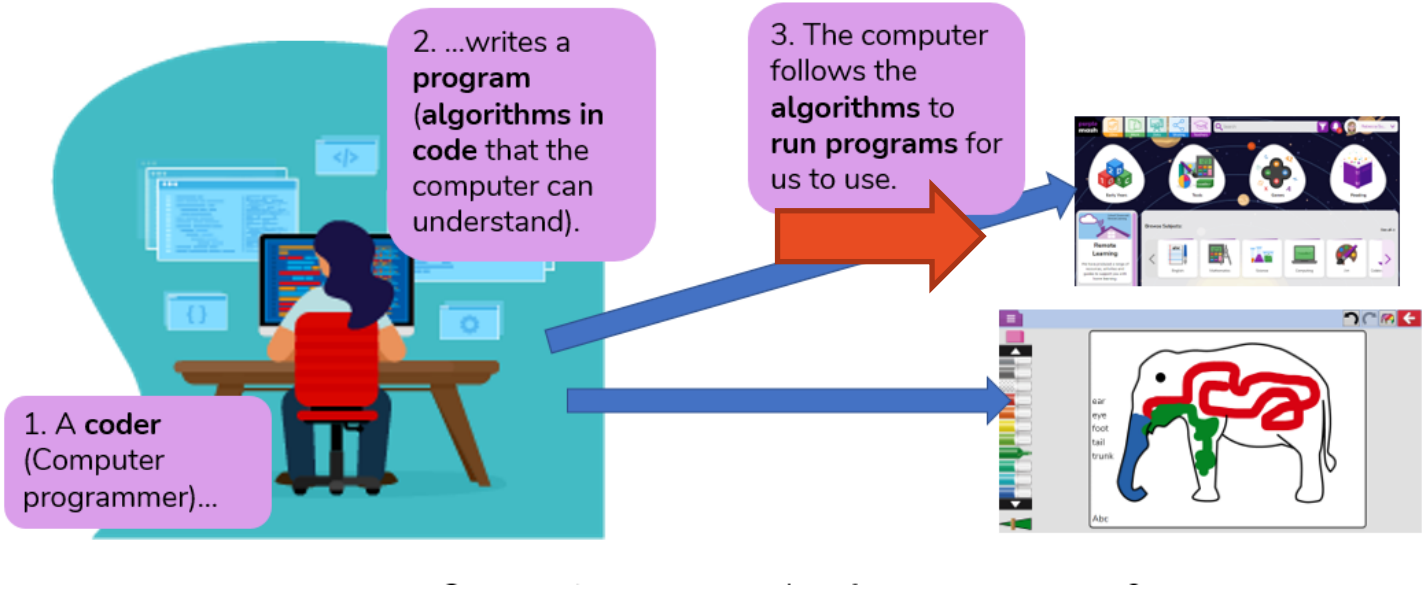
Unit 1:7 Coding

What is **coding**?



An **Algorithm** is a set of instructions that are precise, step by step and which complete a task.

A **Program** is an algorithm written for a computer. It is written in **code** (symbols and words that a computer can understand).

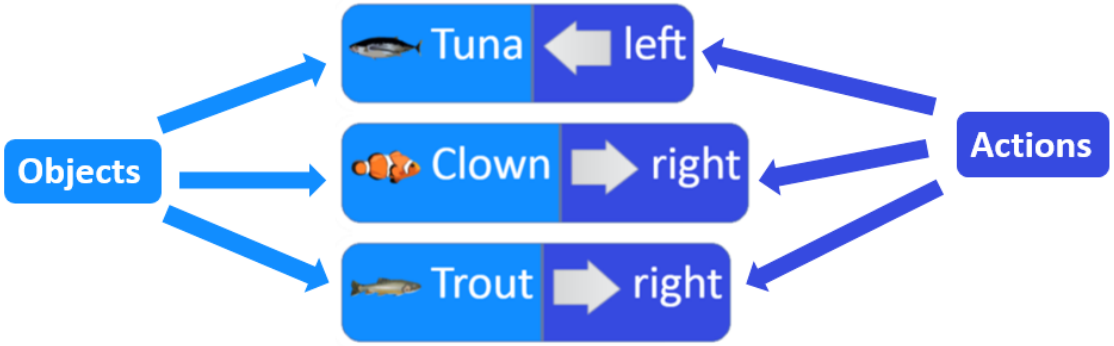
On Purple Mash, we can use **2Code** to practise our coding skills.


2Code

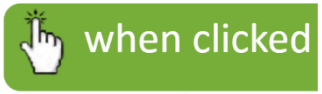

Free code chimp

This set of instructions written in **2Code** can be called an **algorithm** and can form part of a **program.**

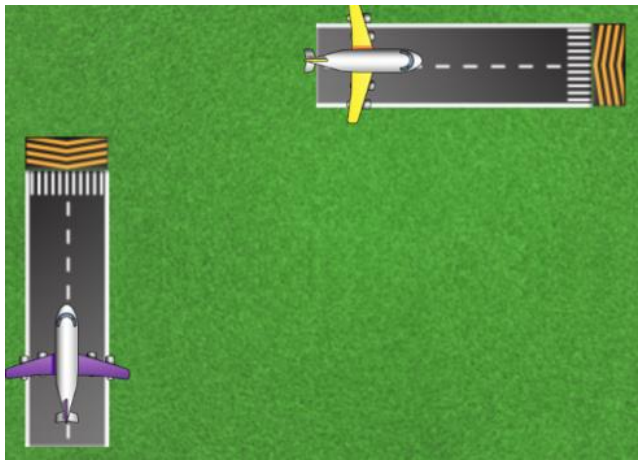
All **objects** have **properties** that can be changed in design or by writing code e.g: **image, colour** and **scale** properties.



Command (a single instruction in a computer program)



A 'when clicked' **event** code block. When it is used, it causes a block of code to be run when you **click** on something.



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Air Traffic Control Scene

The grass is the **background**, and that the planes and runways are **objects** – and all together they make the **scene**.

Background – the part of the program design that shows behind everything else.

To create the scene:

Click 

to open **design view.**
Add **objects** and change their **properties.**

Click  to change the **background.**

Click 

to return to **code view.**

Bug

A bug is an error in an algorithm that stops it from completing a task correctly.

Debug

When you debug a program, you look for any bugs in the code and try to fix them.

Why is it useful to design before coding?

It helps you 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.