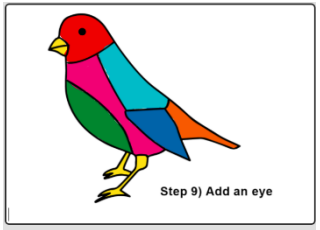
Creating and Following Instructions

Algorithm

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



We can create and follow an algorithm to create specific pictures on Paint Projects.

We follow algorithms in our daily lives…

- Getting dressed in the morning
- Brushing our teeth
- Making our breakfast cereal
- Following recipes

Computers follow programs

A **program** is an algorithm that has been written for a computer to follow. It is **coded** so that the computer can run it.

A computer **cannot think for itself** so we need to provide very **precise, step by step instructions for it to follow**.

Creating and Following Instructions

Why might following an algorithm or a program not complete a task correctly?

- Algorithm has not been followed correctly

- Algorithm is not precise

- Steps are not correct

- Steps are not in the right order

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 must we debug?

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.