



Year 3 – Autumn 1
We Are Programmers
Computing



In this unit, the children will create an animated cartoon using characters they design. They will use a **paint tool** to create characters and backgrounds. They then create an **animation** by translating a storyboard into a series of scripted instructions (**program**) for graphic objects.

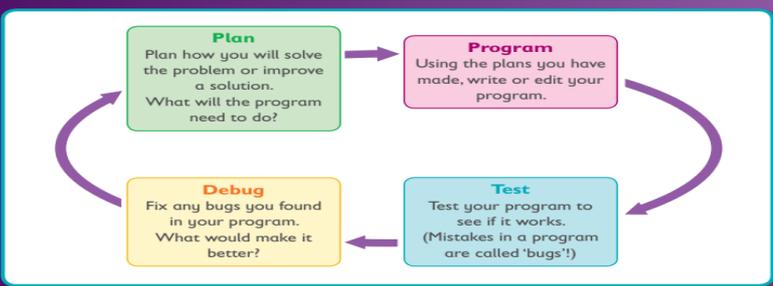
Computer Science

Prior Knowledge

Children will already know how to create a simple algorithm using Scratch for predesigned characters.

How we program

The process of iterative development



E-safety: Review

To understand that good online behaviour is important for making the internet an enjoyable place for everyone

Computing Key Vocabulary

| | |
|--|--|
| Algorithm | A set of rules or a precise step-by-step guide to solve a problem or achieve a particular objective. |
| Animation (CGI – Computer-Generated Imagey) | The process used for digitally generating animated images. |
| Program | A stored set of instructions in a language understood by the computer. |
| Script | A script is a set of steps that a programmer writes for a computer to follow. |
| Storyboard | A storyboard is a series of illustrations that map out the key events in a project. This could be for a game, animation or film project. |
| Variable | A way in which computer programs can store, retrieve or change simple data, such as a score, the time left, or the user's name. |



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| This half term we will be using... | |
|------------------------------------|---------------|
| Hardware | Software/Apps |
| Chromebooks | Scratch |



Line of code - algorithm

The different coloured blocks serve different functions.

The workspace shows a griffin sprite on a forest backdrop. The script area on the left contains the following blocks: when green flag clicked, switch backdrop to Woods, go to x: -96 y: -21, switch costume to Griffin-b, wait 1 seconds, switch costume to Griffin-a, move 10 steps, switch costume to Griffin-d, wait 0.5 seconds, switch costume to Griffin-a, move 20 steps, glide 3 secs to x: 119 y: 202, hide, switch backdrop to Stars, go to x: -294 y: -216, show, glide 2 secs to x: -59 y: -4.

The costume palette shows four costumes: Griffin-a (255 x 218), Griffin-b (255 x 185), Griffin-c (257 x 218), and Griffin-d (283 x 175).

Costumes
 You will need multiple 'costumes' to add realistic movement to you animation

Sprite

Background

Different **sprites** will need their own algorithms