Year 5 Scratch

You have already learnt…

In Year 4, you looked at what algorithms were and what they would do when you put them into a program. You thought about how sequencing worked and how it was important to have information in the correct order. You looked at adding variables and how these can impact the games you create, like adding a time or score function. You looked at how debugging is about fixing errors.

Key Skills

- Effectively design, write and debug programs for a clear purpose using Scratch
- Use sequence, selection and repetition within their programs
- Work with variables effectively within Scratch
- Use logical reasoning to locate and explain errors in programs they have designed

Key Knowledge

When you find an error in your Scratch program, you can use logical reasoning to solve your problem and this is called debugging.

Variables in Scratch will change parts of your game and influence how it works as it is running—for example adding the score or the time function.

Repetition will allow you to repeat a certain function over and over again.

Key Vocabulary

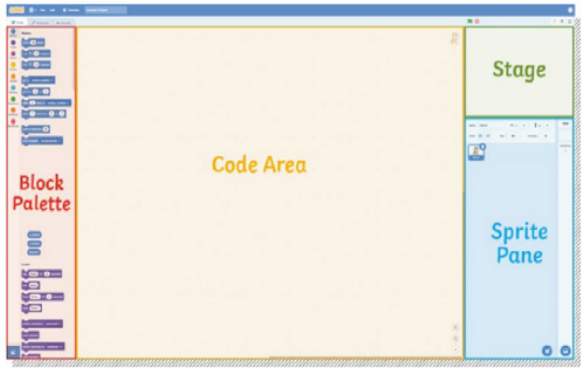
algorithm	A set of **sequenced** instructions or rules for solving a problem or completing a task in a logical order.
debug	To find, remove or correct errors in a computer program.
deconstruct	To break down existing **algorithms** into smaller parts to see what they want to do.
sequence	The order in which a set of instructions is performed or carried out.
costumes	A way to change the appearance of a sprite.
backdrop	An image that can be shown on the **Stage**.
variable	A piece of data that can be recorded in the memory of Scratch. A **variable** can be altered and changed.
consequence	What happens as a result of actions or choices made within the game.
repetition	When a command or process is repeated.

Next you will learn…

You will use Scratch in every year in KS2, learning to make animations, create games and write your own stories.

Block Categories	Key Blocks	
Each block category has its own set of coloured blocks, which each have their own function. Motion Sensing Looks Operators Sound Variables Events My Blocks Control		This block starts an **algorithm** when the green flag is clicked.
		This block uses the input of a specified key to begin an **algorithm**.
		This block makes the code inside the loop repeat continuously.
		This block determines the outcome of a condition.
		This block detects if a sprite is touching a specific colour.
		This block changes the **backdrop** to one from the drop-down menu.

Scratch Interface



What Is an Algorithm?

Algorithms on a computer are exactly the same as everyday **algorithms**. They are a set of **sequenced** instructions or rules for solving a problem or completing a task in a logical order.