Computing – Lent 2
Scratch, algorithms and debugging

Scratch Blocks

There are nine categories of blocks in Scratch. Blocks are shaped like puzzle pieces as they fit and connect together vertically to create an **algorithm**.

Block Categories	Key Blocks	
Each block category has its own set of coloured blocks, which each have their own function.		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.
Motion Sensing Looks Operators Sound Variables Events My Blocks Control		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.

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.
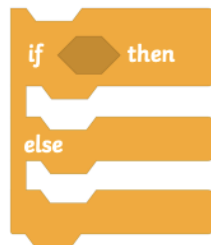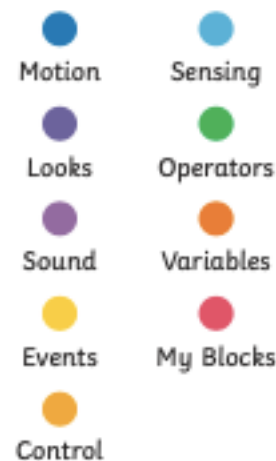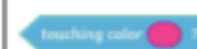
Block Categories

Motion   Events   Operators

Looks   Control   Variables

Sound   Sensing   My Blocks

Control Blocks

Use the **if...then...else...** blocks to determine the outcome of a condition.

An **Operators** block can be placed inside the hexagonal space.

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.

Scratch Paint Editor

	Select - This cursor can be used to move an object, resize and rotate it.
	Brush - This tool allows you to draw.
	Fill - This tool allows you to fill in an object.
	Line - This tool is used to draw straight lines.
	Reshape - This tool can be used to bend or change shapes.
	Eraser - This tool allows you to remove any drawings you have made.
	Text - This tool can be used to type words onto a backdrop.
	Circle - This tool allows you to draw circles or ovals.
	Rectangle - This tool allows you to draw squares or rectangles.