

Scratch

Keyword	Definition
Algorithm	A series of instructions to solve a problem
Comments	Help you understand your code at a later date
Sprite	Animated characters or objects that are separate from the background in a game
Looping	Repeating the same piece of code more than once
Selection	place in the code where a choice is made
Variable	A location in memory
Broadcast	Make two things happen at the same time

Adding Comments

The image shows a Scratch script starting with 'when clicked', followed by 'show', 'set Score to 0', and a 'forever' loop. Inside the loop, there is an 'if touching Astronaut?' block containing 'hide', 'change Score by 1', 'wait 5 secs', and 'show'. Yellow callout boxes point to the 'set Score to 0' block with the comment 'Initialise the Score to 0' and to the 'change Score by 1' block with the comment 'Increase the Score every time the Astronaut collects the Martian Sample'.

The Scratch window

A diagram of the Scratch stage showing a coordinate system. The x-axis ranges from -240 to 240, and the y-axis ranges from -180 to 180. The origin (0,0) is at the center. Below the diagram, it says 'Uses coordinates'.

Operators

A collection of Scratch operator blocks including:

- Arithmetic: +, -, *, /
- Random: pick random 1 to 10
- Comparison: <, =, >
- Logical: and, or, not
- Text: join, letter 1 of, length of
- Math: mod, round

Concurrent events

The image shows two code snippets. The first starts with 'when clicked', sets Health to 100, and enters a 'forever' loop with an 'if touching Asteroid?' block containing 'broadcast Damage' and 'change Health by -1'. The second snippet starts with 'when I receive Damage', repeats 'turn 15 degrees' 25 times, and then says 'Warning! Spacesuit damaged for 0.5 secs'. A red arrow points from the 'broadcast Damage' block to the 'when I receive Damage' block. To the right, red text says 'Both blocks of code will run at the same time'.

Adding sound

A Scratch 'play sound' block with 'laser1' selected in the dropdown menu.

Sprites

A row of five different bird-like sprites, each in a different pose, representing various sprite options in Scratch.

Movement

Scratch code blocks for movement: 'when right arrow key pressed', 'point in direction 90', and 'move 10 steps'.

Looping and Selection

Scratch code blocks for looping and selection: 'when clicked', 'forever' loop, 'if touching Asteroid?' block, 'say Game Over', and 'stop all'.