



**Sprites** are animated characters or objects that are separate from the background. To create a sprite, you can: Use the Sprite Library, Create one using the Sprite Editor or Import a sprite from a file.

**Operators** are used to script math equations and string handling. You can combine the use of operators, sprites, and coordinates to make objects appear at various points on the screen randomly.

The Scratch window uses **coordinates** to show the position of sprites.

A **variable** represents a location in memory. This location is used to hold a value which you assign to it. You can change the value in the program. You give a variable a name, which you use to refer to it, for example to set an initial value, change, use or output the value  
For example: A variable called "Lives" might hold the value "3"  
Set Lives = 3

Repeat statements are used to repeat sets of commands automatically  
The loop can specify how many times to repeat, or it can happen forever until another condition is reached

Adding **comments** in Scratch. Comment boxes in Scratch help you, and others, understand your code at a later date. Commenting is good practice for professional programmers

**Sequence, selection and iteration** are all processes. In order for computers to perform tasks there is more that is needed. For example a computer will take an input which the computer will then process and the output will be visible on the computer monitor.

**Broadcasts** are useful in games and animations, as they trigger specific scripts. A broadcast is a message that is sent through the Scratch program, activating scripts with the matching blocks.

Adding sounds is done using the Sounds tab. Scratch has a library of pre-recorded sounds. Custom sounds can be recorded or found online and imported. Simply add a sound block where you want the effect played.

We use **algorithms** in every day life . Example an algorithm to get to school, to make a cup of tea, to make a pizza, to order a takeaway. These are just precise sequences of instructions.

**Debugging** is the process of finding an error in your code and taking steps to fix the problem.

**Count controlled iteration** will execute the commands a set number of times.

**Condition-controlled iteration** will execute the commands until the condition you set is no longer being met.

A **selection** statement in programming allows a computer to evaluate an expression to 'true' or 'false' and then perform an action depending on the outcome.

Importance of **Testing**:

- Test to try and find errors in your program
- Document the errors
- Fix the errors
- Re-run the tests