Knowledge Organiser: Scratch

What is Scratch?

Summary

Scratch is a visual programming language, designed for people who have never done any programming before. Its a very good tool to learn the basics of coding.
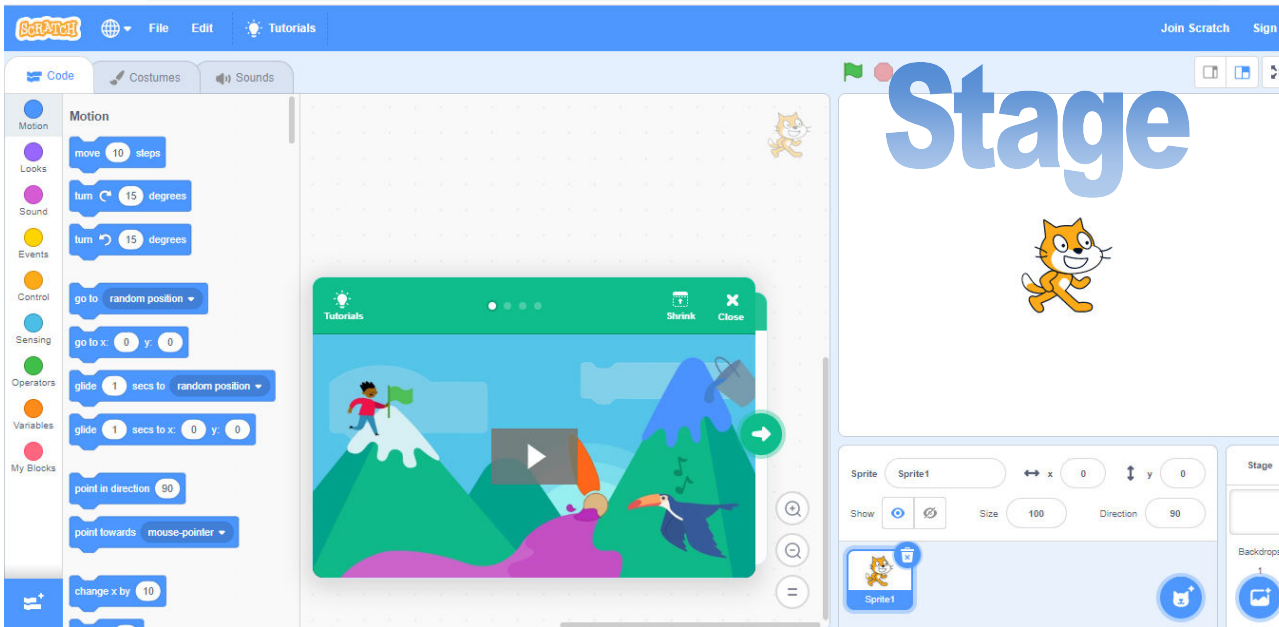
With Scratch, you can program your own interactive games, and animations. Scratch helps you to learn coding in a visual colour coded way and see how the blocks of coloured code fit together to make a working program. It also lets you learn about more complicated coding concepts such as iteration and selection in an accessible way.

Scratch is an online coding program—www.scratch.mit.edu used widely in the uk and usa to learn how to code.

Category	Notes
Motion	Moves sprites, changes angles and position
Looks	Controls the visuals of the sprite
Sound	Plays audio files and effects
Events	Event handlers
Control	Conditionals and loops etc.

Category	Notes
Sensing	Sprites can interact with the surroundings
Operators	Mathematical operators, comparisons
Variables	Variable and List usage and assignment
My Blocks	Custom procedures

Scratch User Interface

The table above shows the categories of the programming **blocks**:

When creating sprites and backgrounds, users can draw their own **sprite** manually, choose a Sprite from a library, or upload an existing image.

There are **three tabs** to create your program on the coding area —Code, Costumes and Sounds

The example here is coding the **motion** of the sprite

The Scratch interface has **three main sections: a *stage area*, *block palette*, and a *coding area*** to place and arrange the blocks into runnable scripts. Users may also create their own code blocks and they will appear in "My Blocks".

With a sprite selected at the bottom of the **staging area**, blocks of **commands** can be applied to it by dragging them from the block palette into the coding area. The Costumes tab allows users to change the look of the sprite in order to create various effects, including animation. The Sounds tab allows attaching sounds and music to a sprite.