

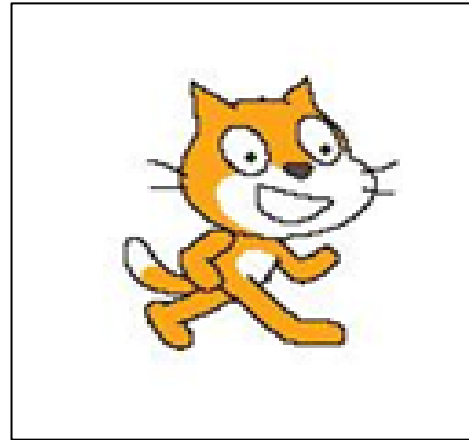


COMPUTING: Scratch & Coding



Overview

Scratch



Scratch is a high-level block-based visual programming language and website aimed primarily at children as an educational tool for programming, with a target audience of ages 8 to 16. Users on the site, called Scratchers, can create projects on the website using a block-like interface.

Scratch is a visual programming language that allow students to create their own interactive stories, game and animations. As students design Scratch projects, they learn to think creatively, reason systematically, and work collaboratively.

SCRATCH

Scratch allows to us begin to use coding language and get used to creating algorithms. In Scratch we can create games, stories, art and simulations.



Computer programming is the process of performing a particular computation, usually by designing and building an executable computer program. Programming involves tasks such as analysis, generating algorithms, profiling algorithms' accuracy and resource consumption, and the implementation of algorithms.

Writing your own algorithms in scratch - Scratch has pre-programmed block of code that can be placed together to create your algorithm, to create the instructions for your sprite(s) and the background.

Coding, in simpler terms, is the language used by computers to understand our commands and, therefore, process our requests.

Features of Scratch

An algorithm is a set of instructions that need to be followed in order to achieve an outcome. They can be thought of as a recipe, for example, for making a smoothie, the steps have to be completed in the right order; don't turn on the blender before putting on the lid!

Blocks palette: The blocks palette has many pre programmed, colour coded blocks of code to help with your project.



Script area: the script area shows the completed blocks of coding. The blocks are dragged from the block palette and dropped into the scripts to create an algorithm

Sprites: An animated object, separate from the background of the game. Each sprite will have it's own coding which can include movement controls, variables, appearance and sound.

Further information/ Home work



At home:

Scratch is online:

<https://scratch.mit.edu/>

Useful links:

BBC Bitesize: www.bitesize/ict

<https://code.org/learn>

Algorithms:

<https://www.bbc.co.uk/bitesize/topics/z7d634j>

If you have enjoyed learning to use Scratch you can continue to practice your skills – and learn more. There are a number of tutorial videos to help you progress.

Important Vocabulary

Scratch

Coding

Algorithms

Sprites

palettes

Games

Creativity

Online

programming