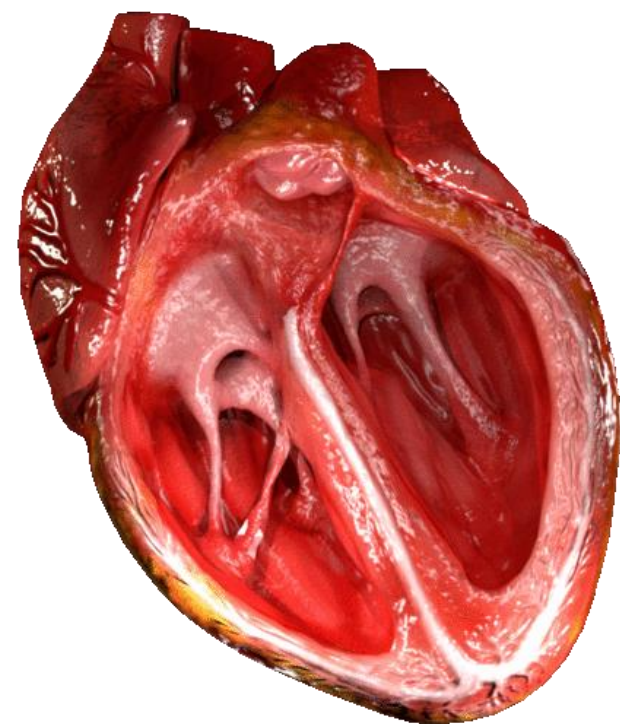




# ATL Game Development Platform

**Day 01**

# Introduction to Game Based STEM Resource



**By Mr. Neeraj &  
Ms. Chithra from  
Learning Links Foundation**

# Agenda of the day

01

Introduction to Game Based Resources  
(Animations/Games/Activities)



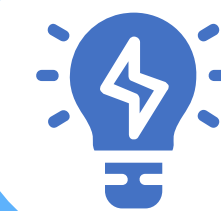
02

Various ICT tools to Create Game  
Based Resources



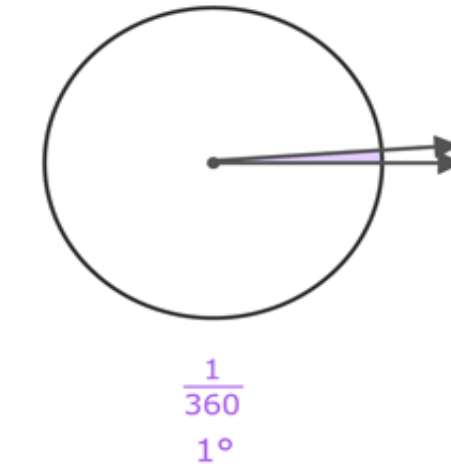
03

Introduction to Scratch(Installing  
Software and Registration Process on  
Scratch



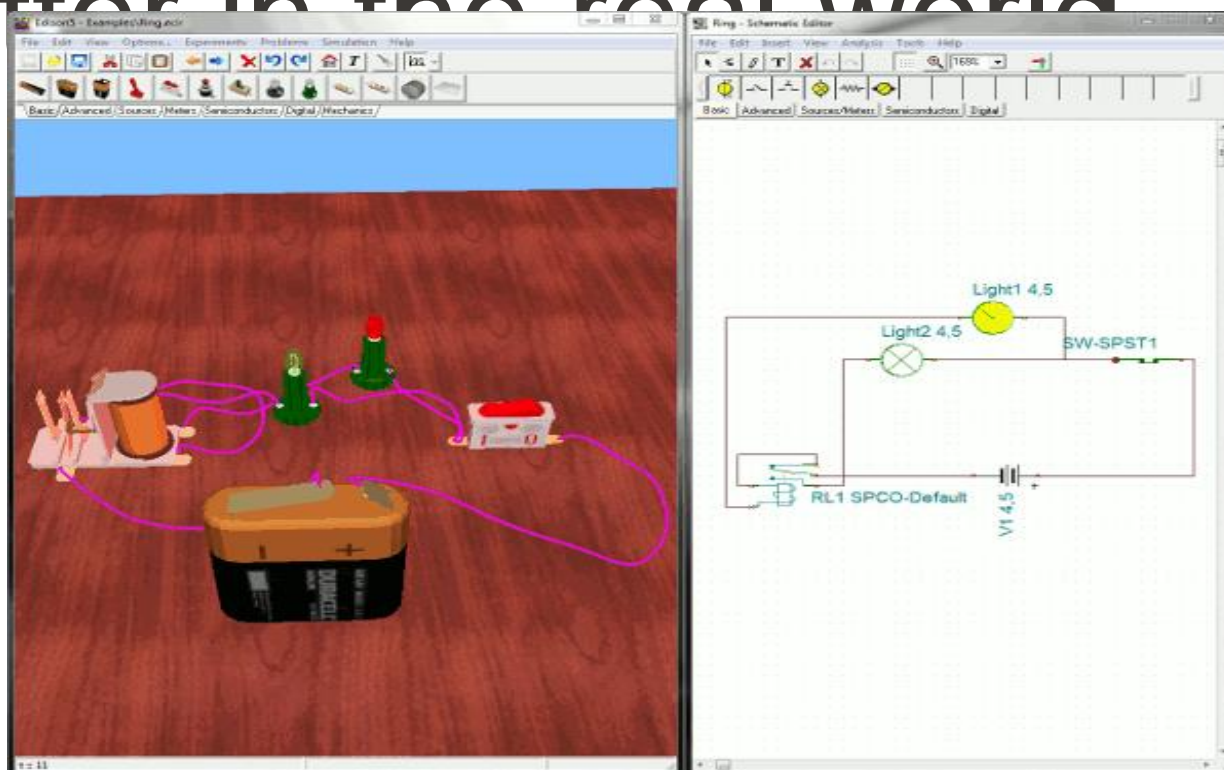
04

Demonstration of Sample STEM  
Scratch Projects

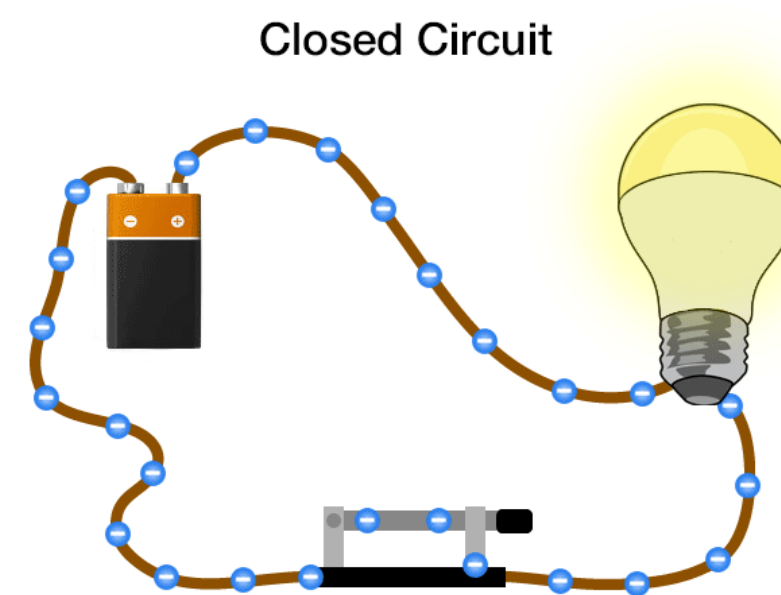


# Game Based Resources

Game-based resources are **game plays, fun animations, quizzes and projects** with specific learning objectives. The game-based resource learning is designed to balance subject matter with gameplay/animations/projects, and the students' ability to retain and apply the subject matter in the real world.



**Game Play : Virtual Circuit Connection and Simulation**

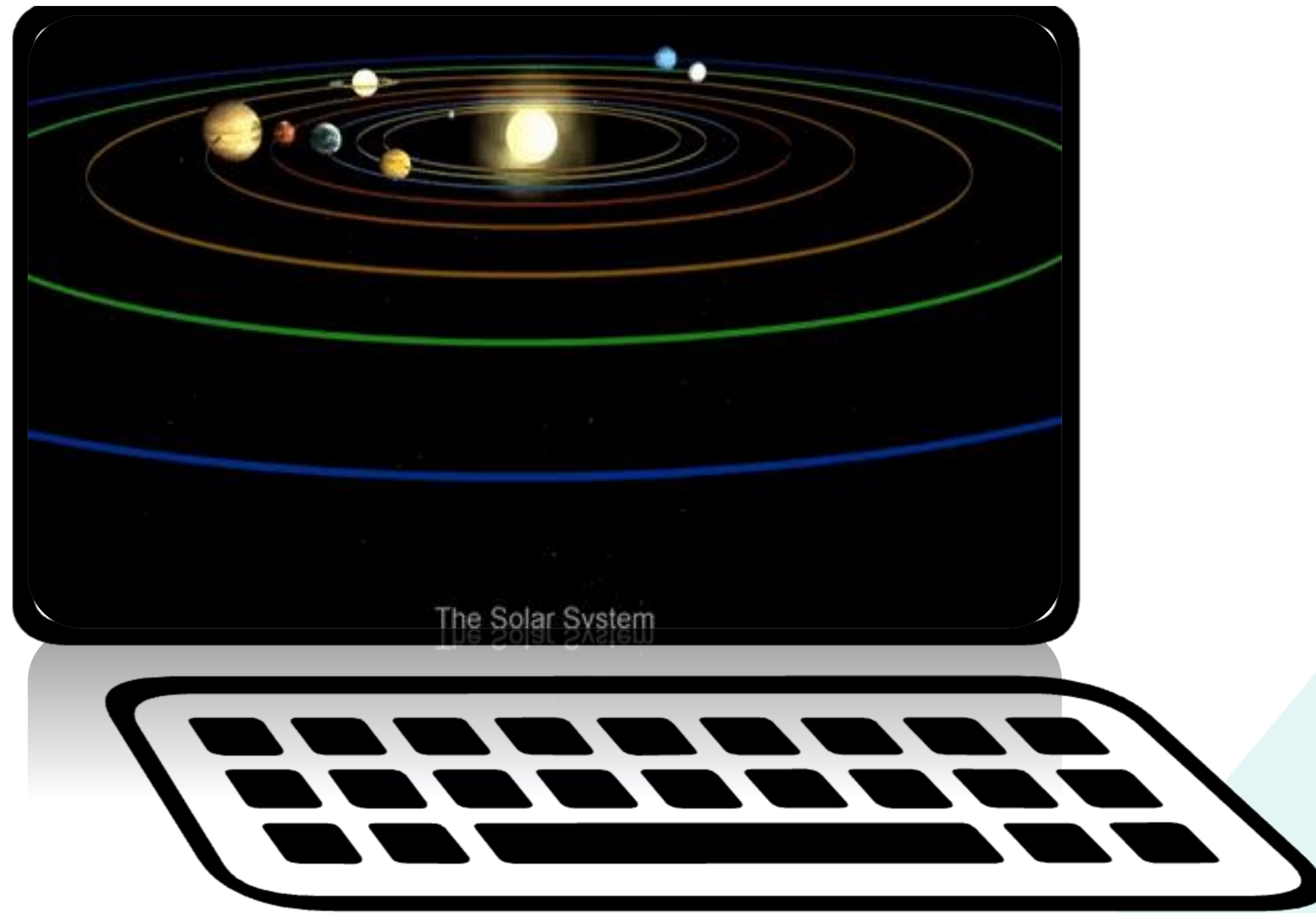


**Animation : Flow of Current in a simple Circuit**

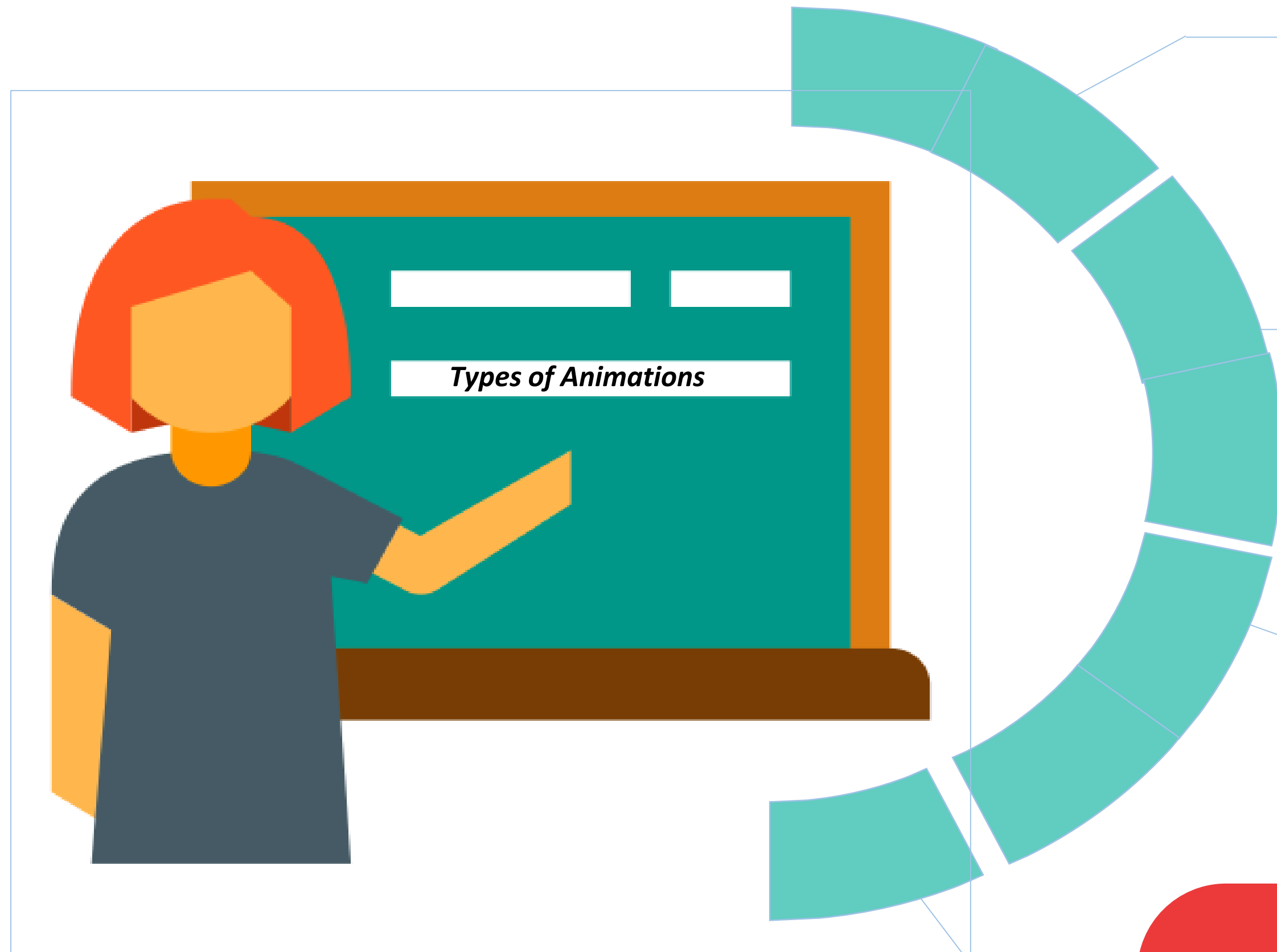
## Game Based Learning Features

- Provide context and real world value of skill and content
- Encourage deeper learning, integration of knowledge base and skill sets
- Seamless accountability, feedback, intrinsic and extrinsic motivators
- Combine audio, graphics and movement into an interactive and immersive environment

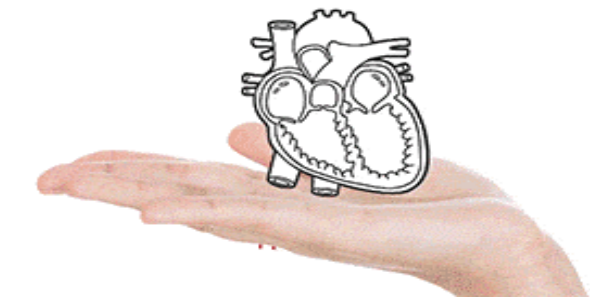
# What are Animations ?



# Types of Animations



**Whiteboard  
animations**



**Motion graphics**



**Hand-drawn**



**Stop-motion**

# Various ICT Tools

Animaker

Powtoon

Scratch  
3.0

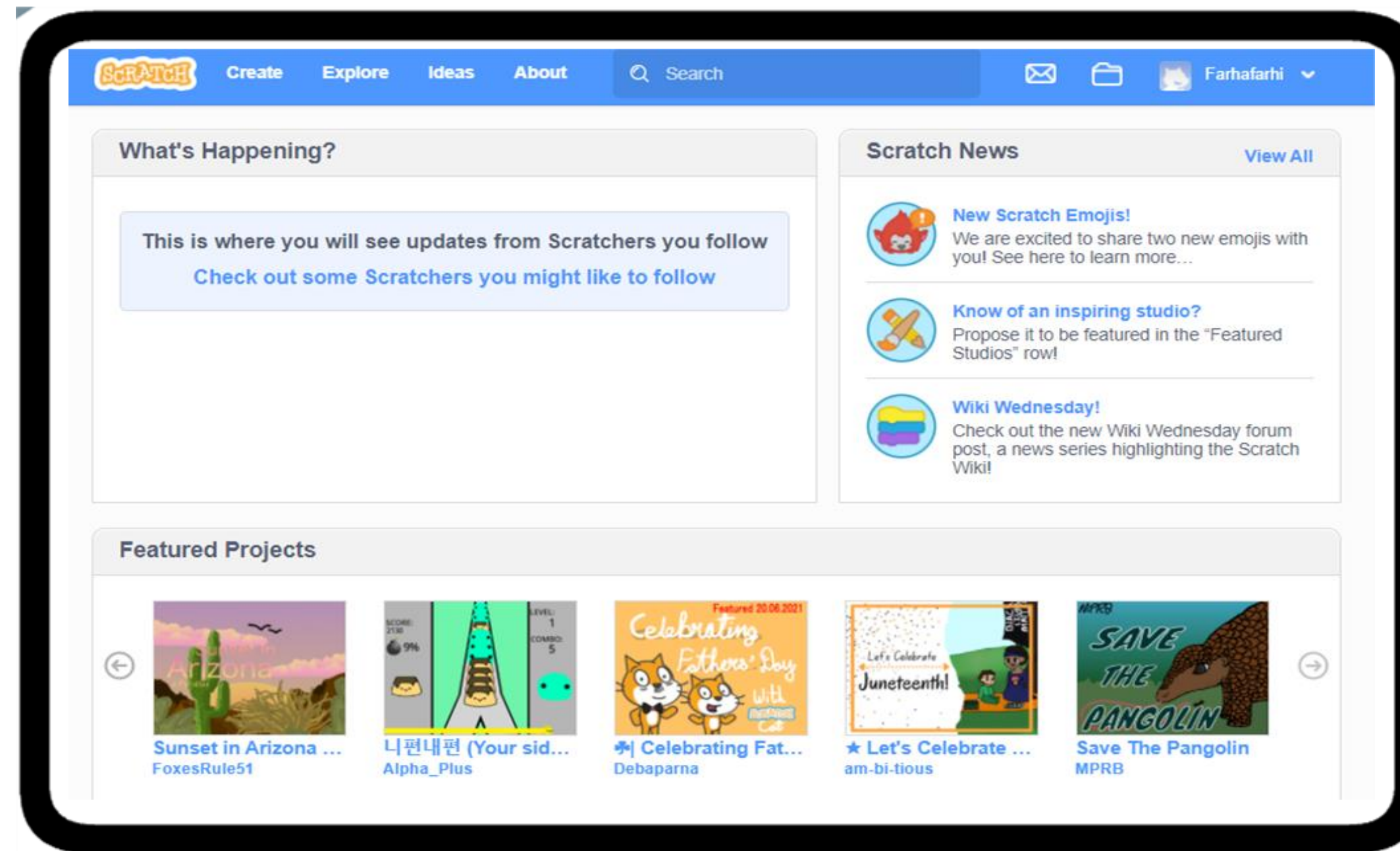
VideoScribe

Adobe

Biteable

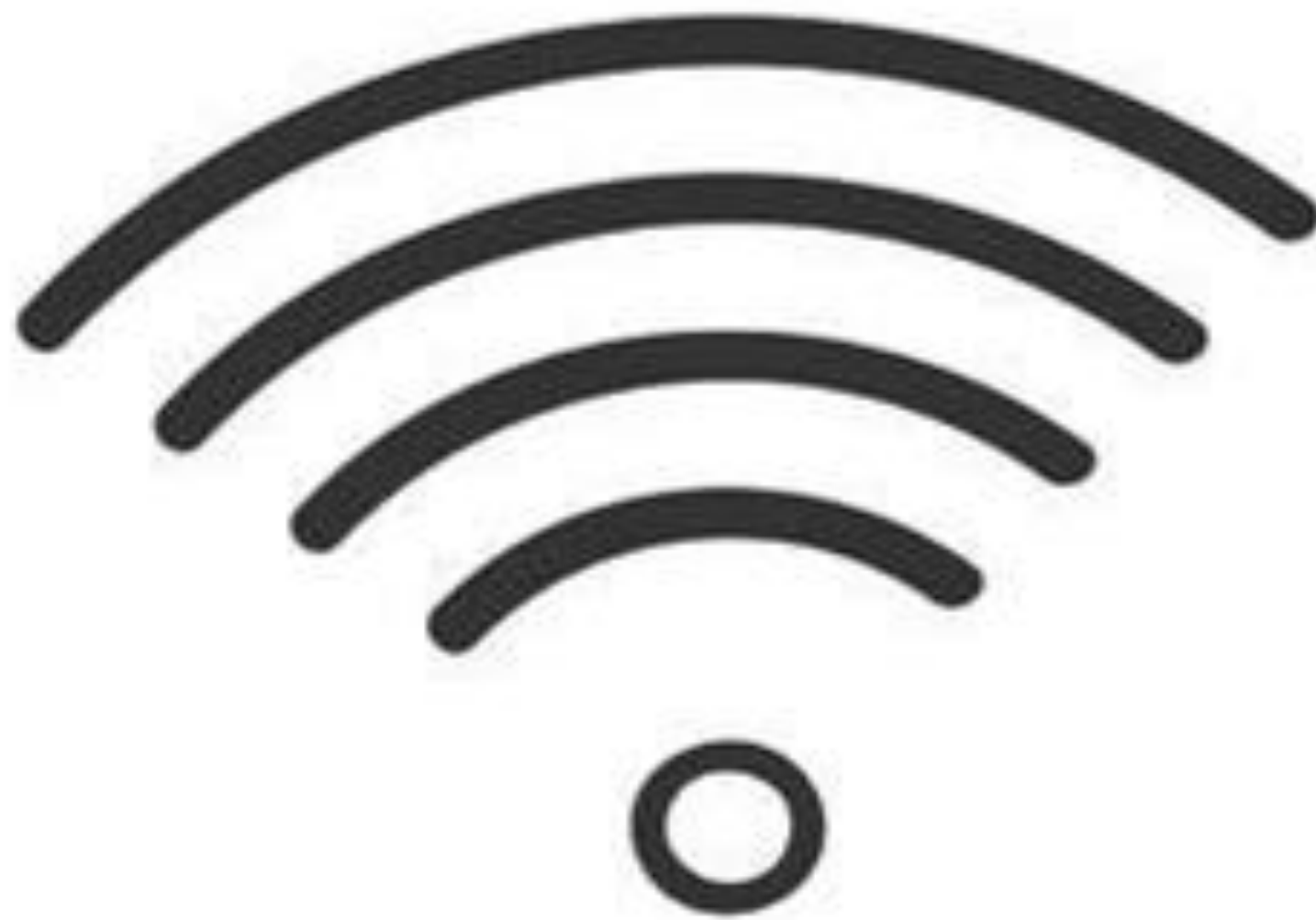
Blender

# Scratch 3.0





# Scratch Versions



**Online Versions**

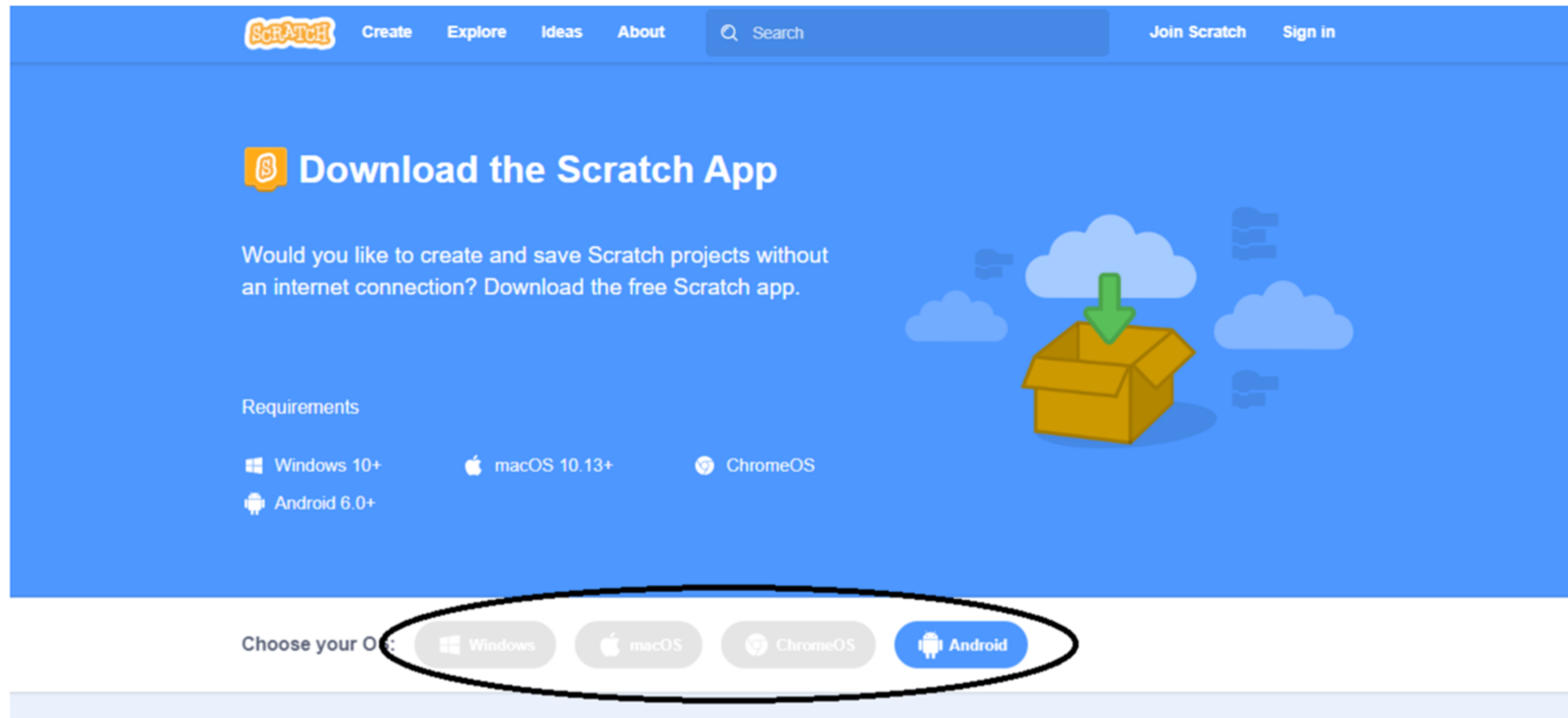


**Offline Versions**

**Downloading  
Scratch onto your  
computer**

# To download Scratch, Visit

[www.scratch.mit.edu/download](http://www.scratch.mit.edu/download)



Scratch Create Explore Ideas About Search Join Scratch Sign in

## Download the Scratch App

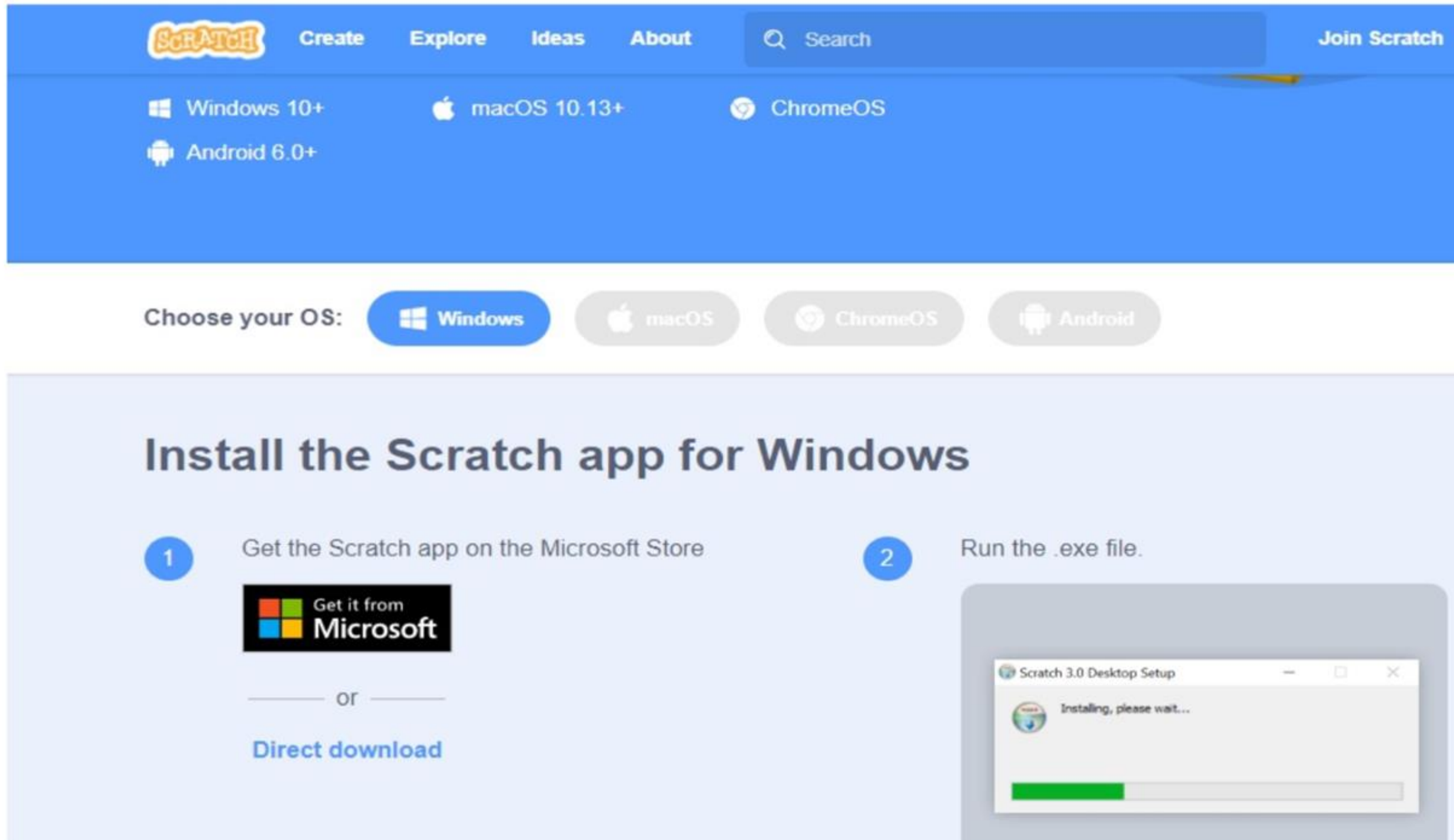
Would you like to create and save Scratch projects without an internet connection? Download the free Scratch app.

Requirements

- Windows 10+
- macOS 10.13+
- ChromeOS
- Android 6.0+

Choose your OS: Windows macOS ChromeOS **Android**

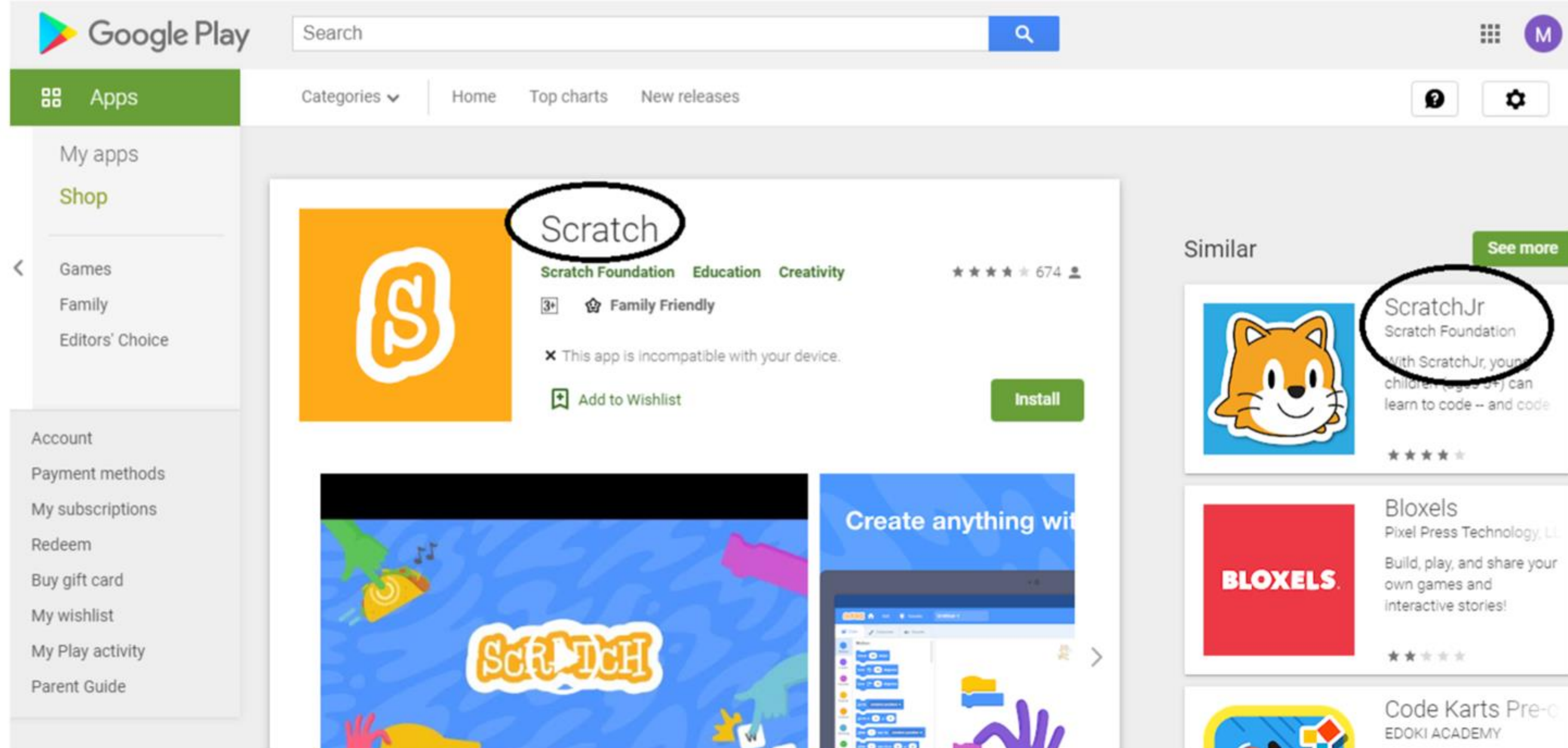
# Follow the on Screen instructions



The screenshot shows the Scratch website's desktop installation page. At the top, there is a navigation bar with the Scratch logo, links for 'Create', 'Explore', 'Ideas', and 'About', a search bar, and a 'Join Scratch' button. Below this, there are icons for supported operating systems: Windows 10+, macOS 10.13+, ChromeOS, and Android 6.0+. A 'Choose your OS:' section features four buttons: 'Windows' (highlighted in blue), 'macOS', 'ChromeOS', and 'Android'. The main content area is titled 'Install the Scratch app for Windows' and contains two numbered steps:

- 1** Get the Scratch app on the Microsoft Store. Below this text is a 'Get it from Microsoft' button and a 'Direct download' link.
- 2** Run the .exe file. Below this text is a screenshot of a Windows installation window titled 'Scratch 3.0 Desktop Setup' with the message 'Installing, please wait...' and a progress bar.

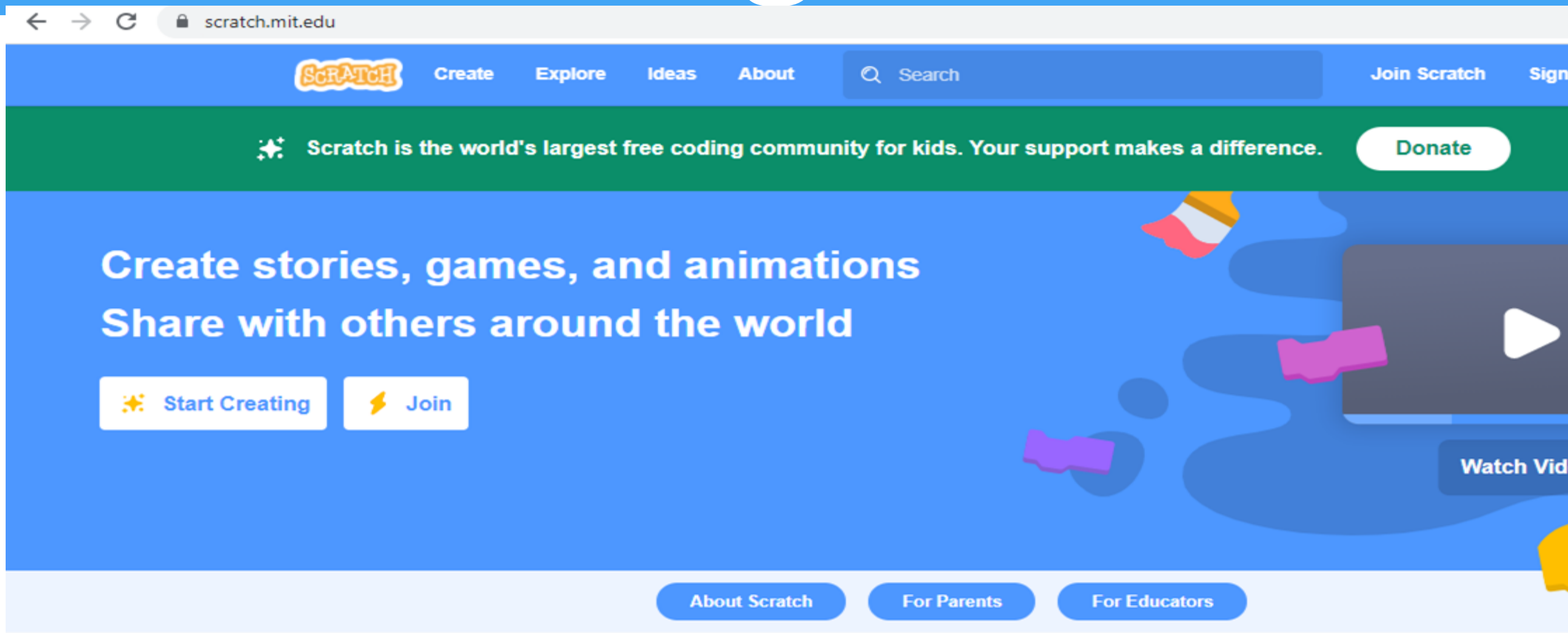
# Download Scratch or Scratch Junior application for mobile devices



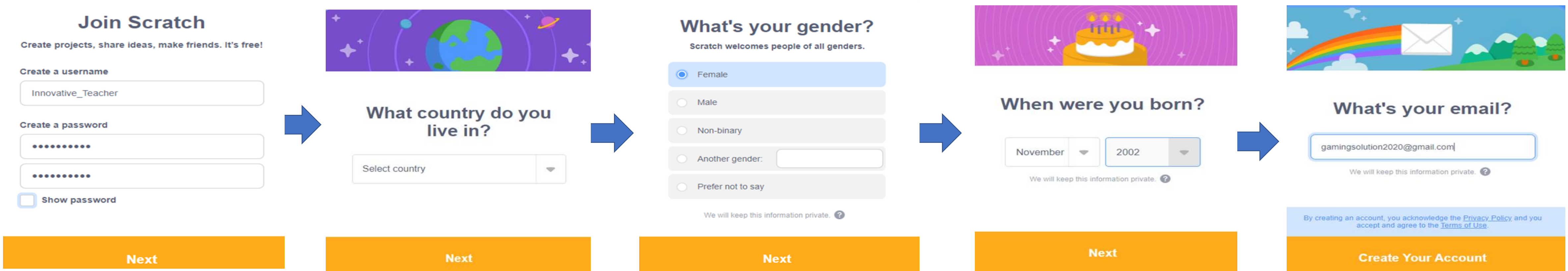
The screenshot shows the Google Play Store interface. The main focus is on the Scratch app page. The app name "Scratch" is circled in black. Below the app name, it says "Scratch Foundation Education Creativity" and "Family Friendly". A message states "This app is incompatible with your device." and there is an "Install" button. To the right, under "Similar" apps, "ScratchJr" is also circled in black. Below the main app page, there are two preview images: one showing the Scratch logo on a blue background and another showing the Scratch coding interface with the text "Create anything with".

# Creating Account on Scratch Online Software

# Creating a scratch Account



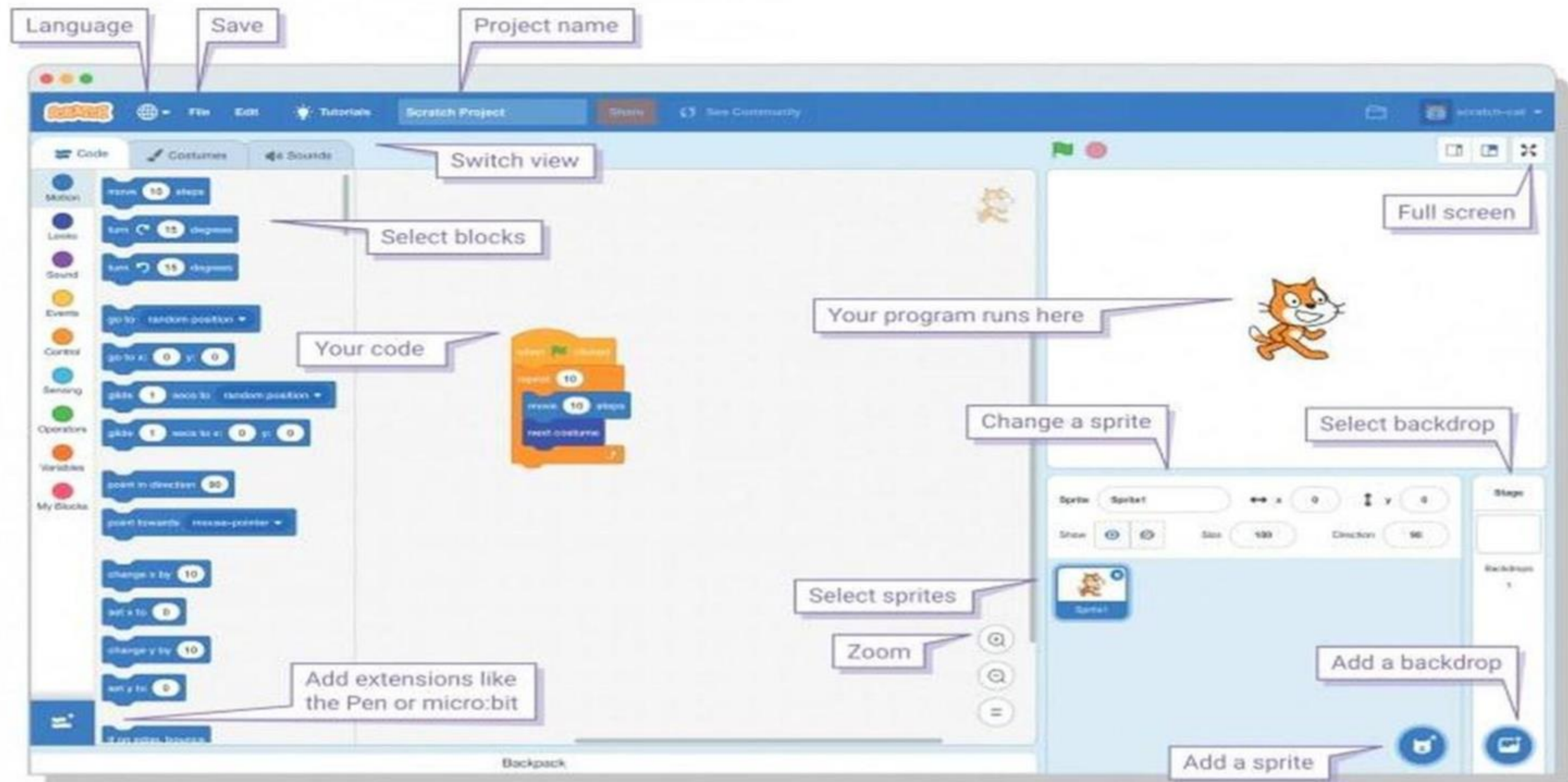
Visit  
[www.scratch.mit.edu](http://www.scratch.mit.edu)  
and click on Join  
Scratch



# Getting Familiar with Scratch Layout



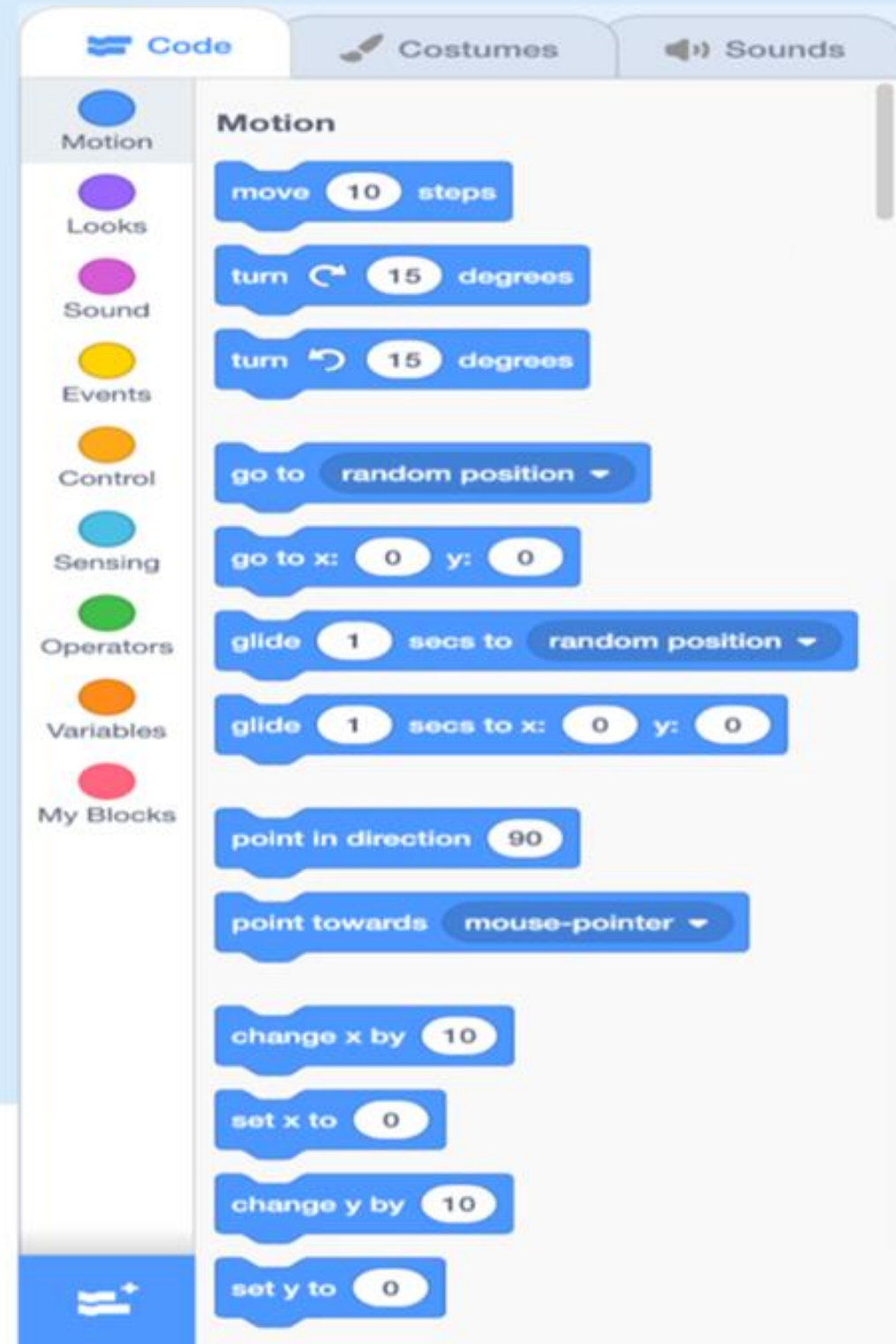
# Explore Scratch Interface



# Explore Scratch Interface

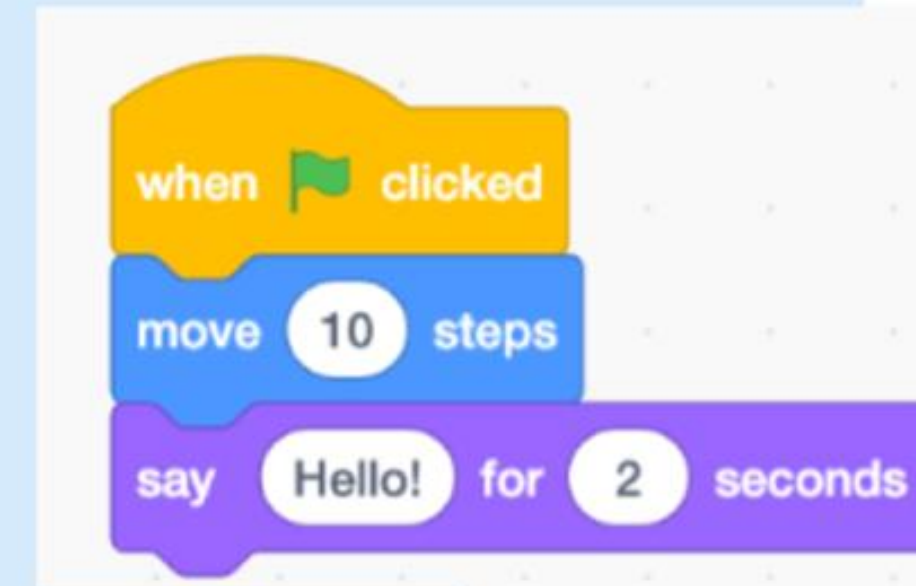
## Block Palette

All your coding blocks are here!



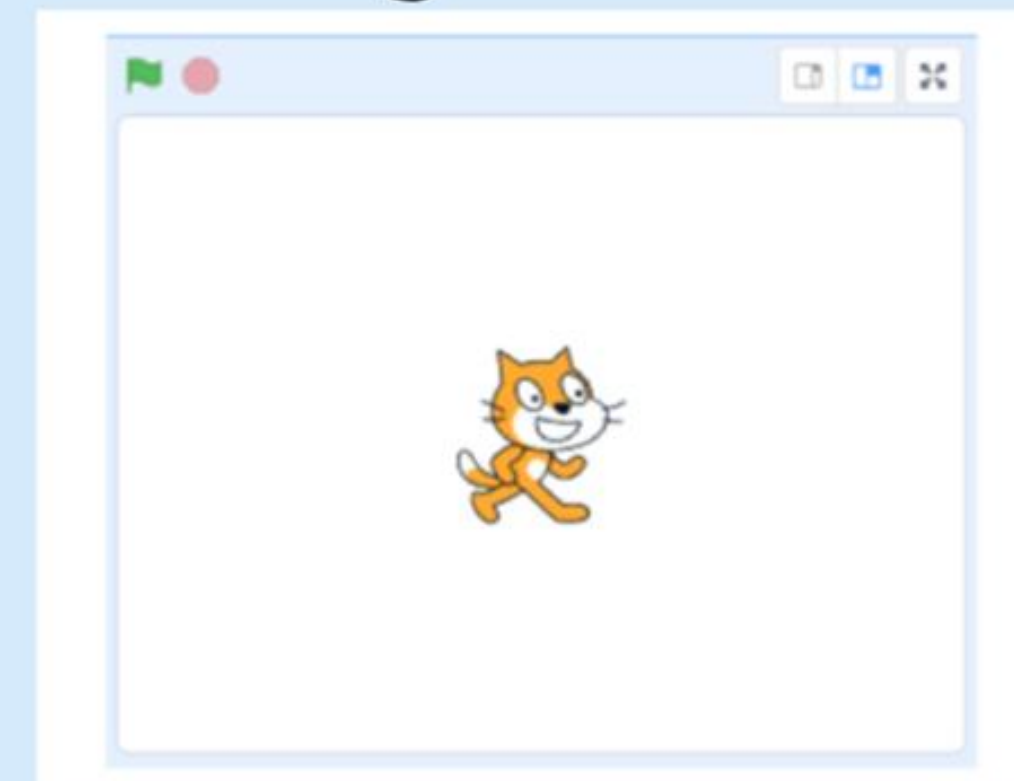
## Scripts Area

The scripts area is where our code is dragged to and assembled.



## Stage Area

The stage our code comes to life!

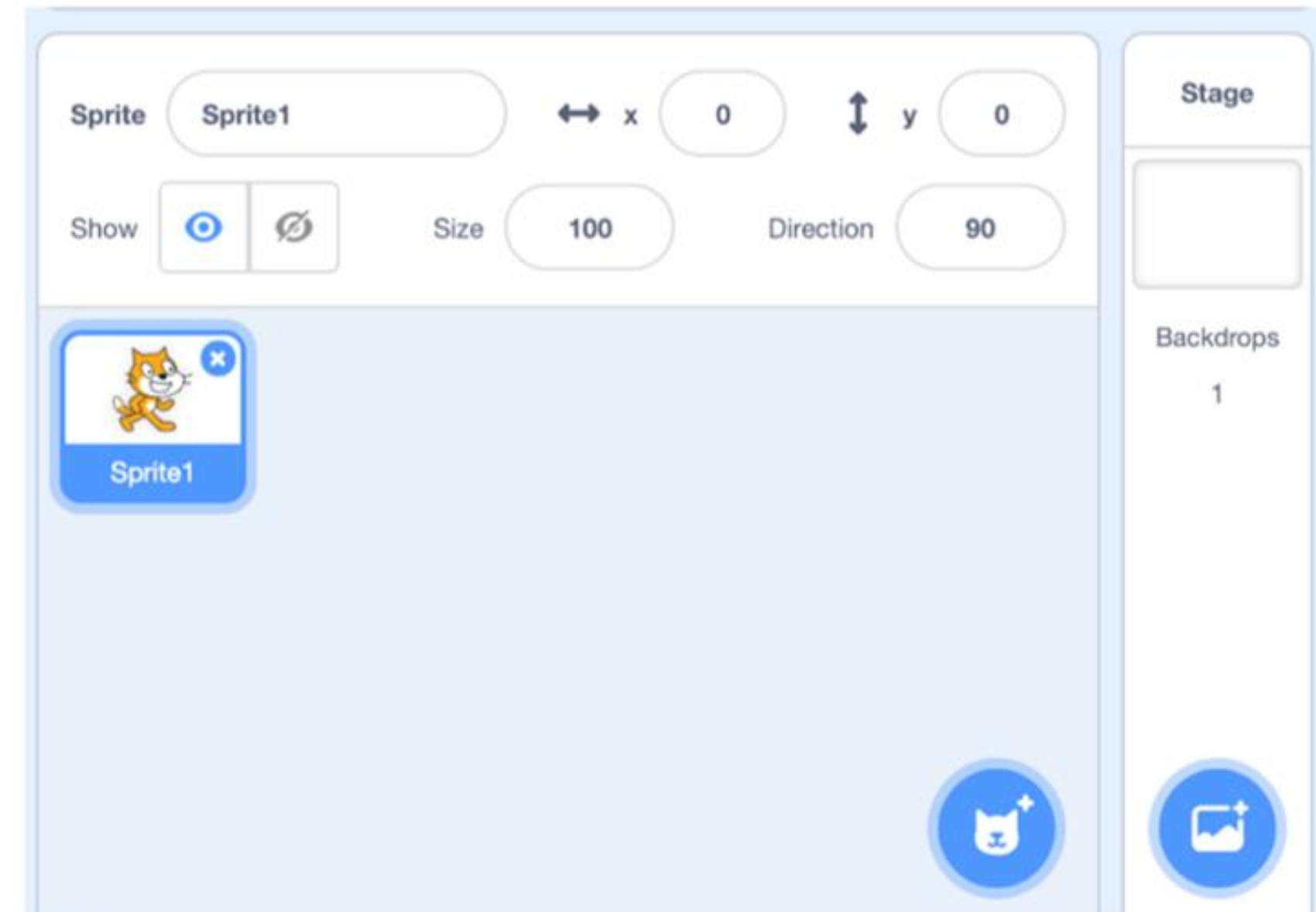
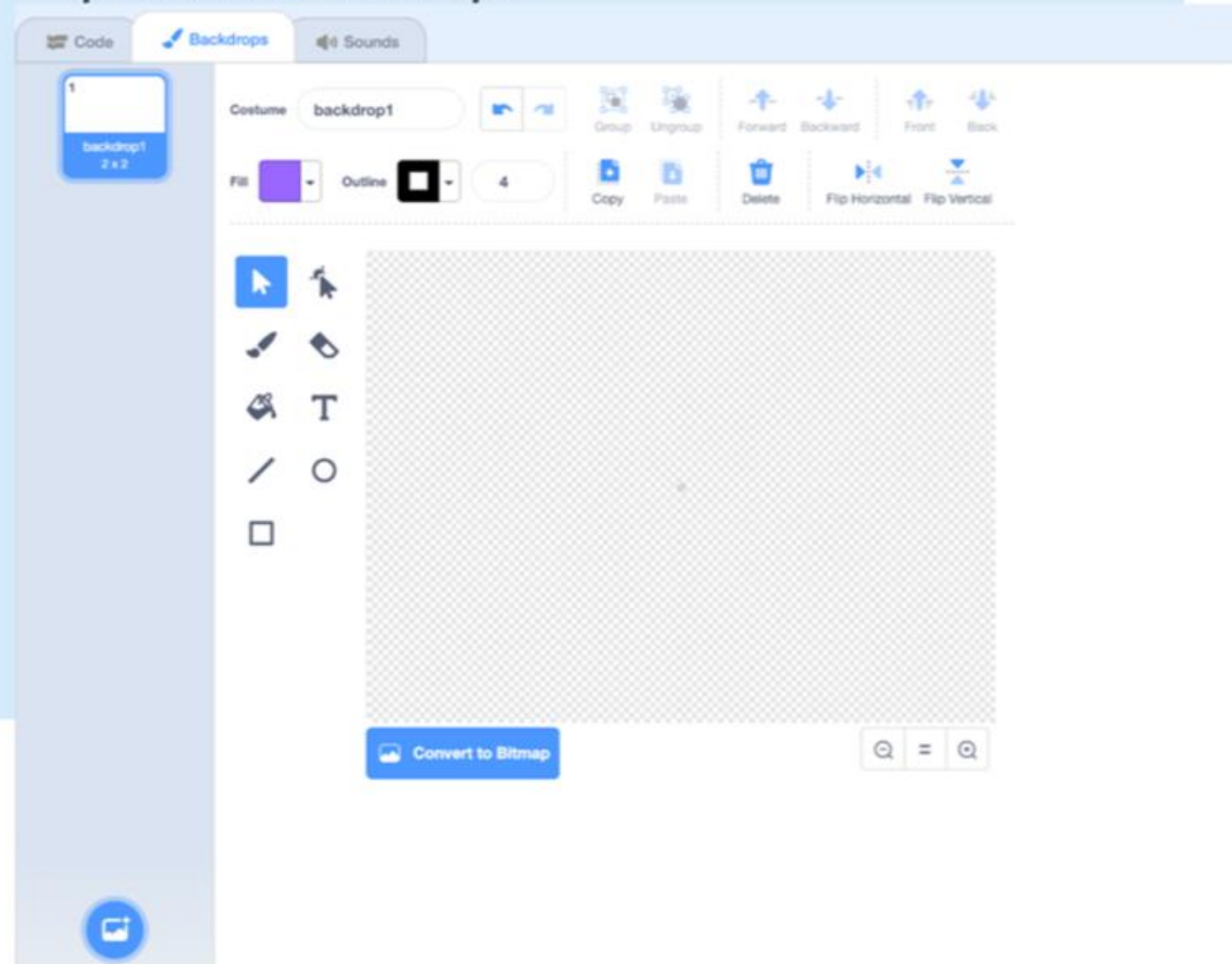


# Explore Scratch Interface

## Costume & Backdrop Panes

It can be accessed by clicking the middle tab in between the "code" tab and the "sounds" tab.

This is where we can create and manipulate sprites and backdrops.

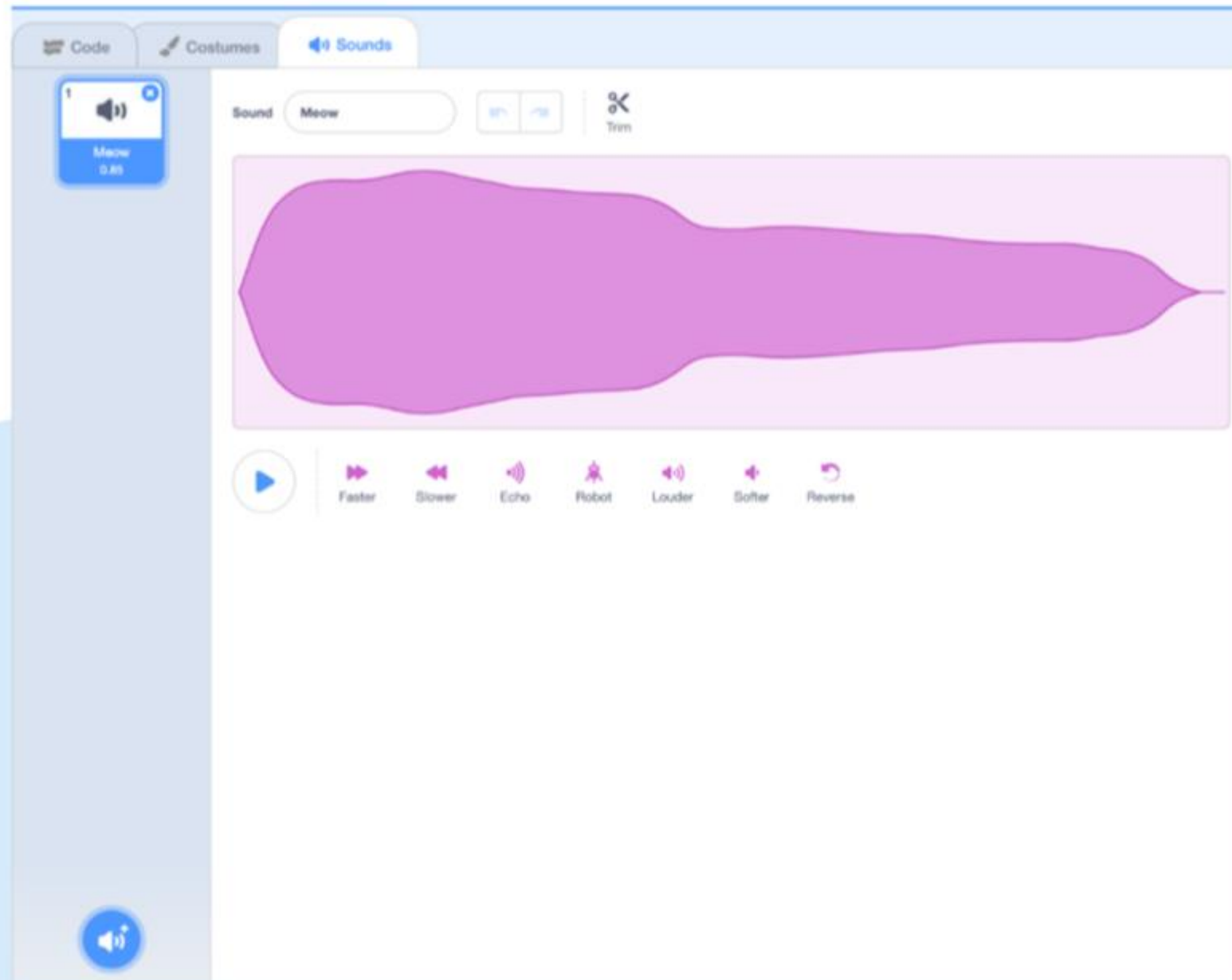


## Sprite info pane

This is where we can find info about our sprites as well as manipulate them.

Access this pane by clicking on the thumbnail of the desired sprite. You can also delete and create new sprites.

# Explore Scratch Interface



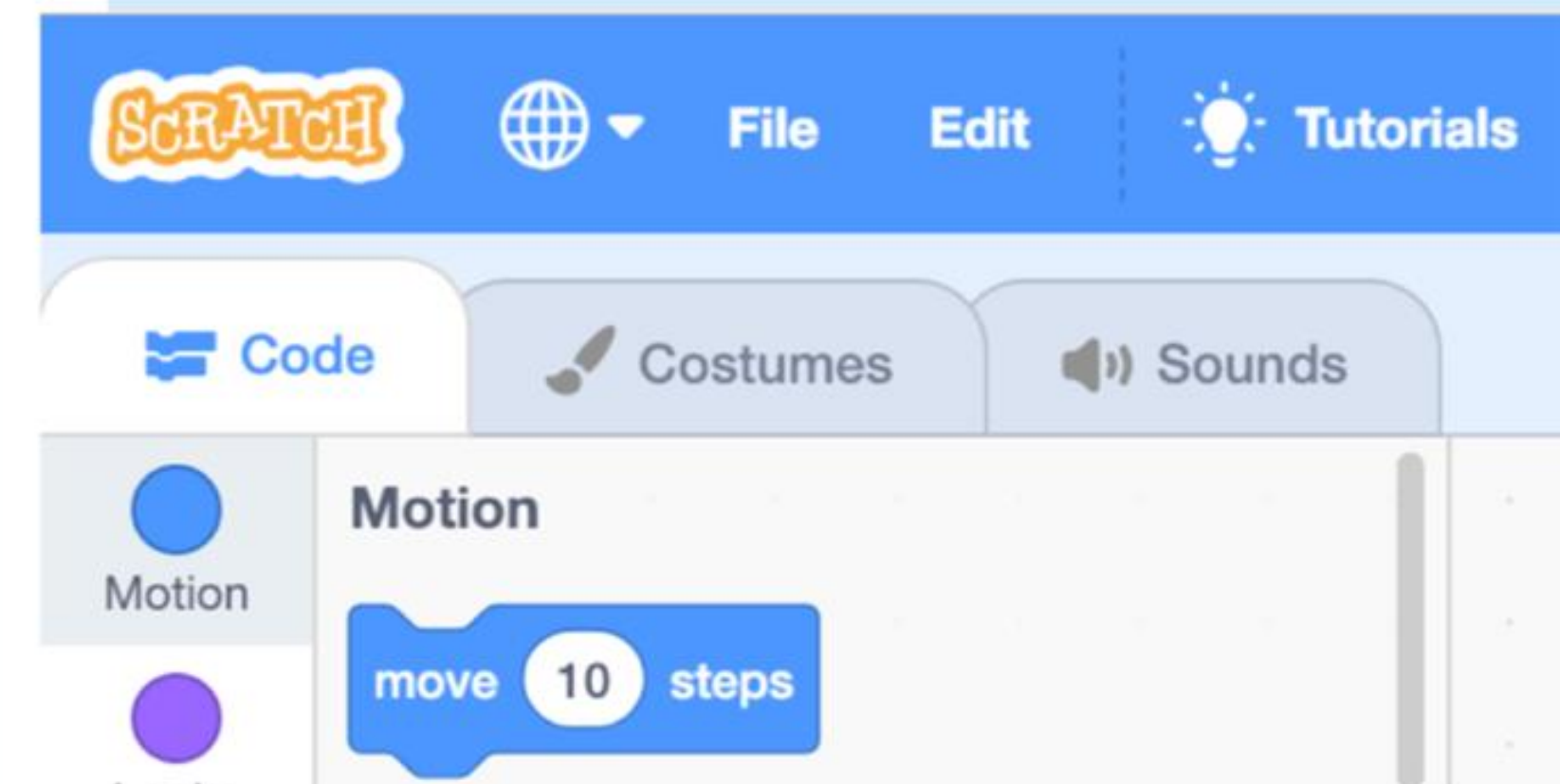
## Sounds Pane

The last tab in the top left area of the interface allows us to create and manipulate sounds.

## Toolbar and Tutorials

The toolbar on the top of the screen allows us to load/ save projects and undo/redo actions.

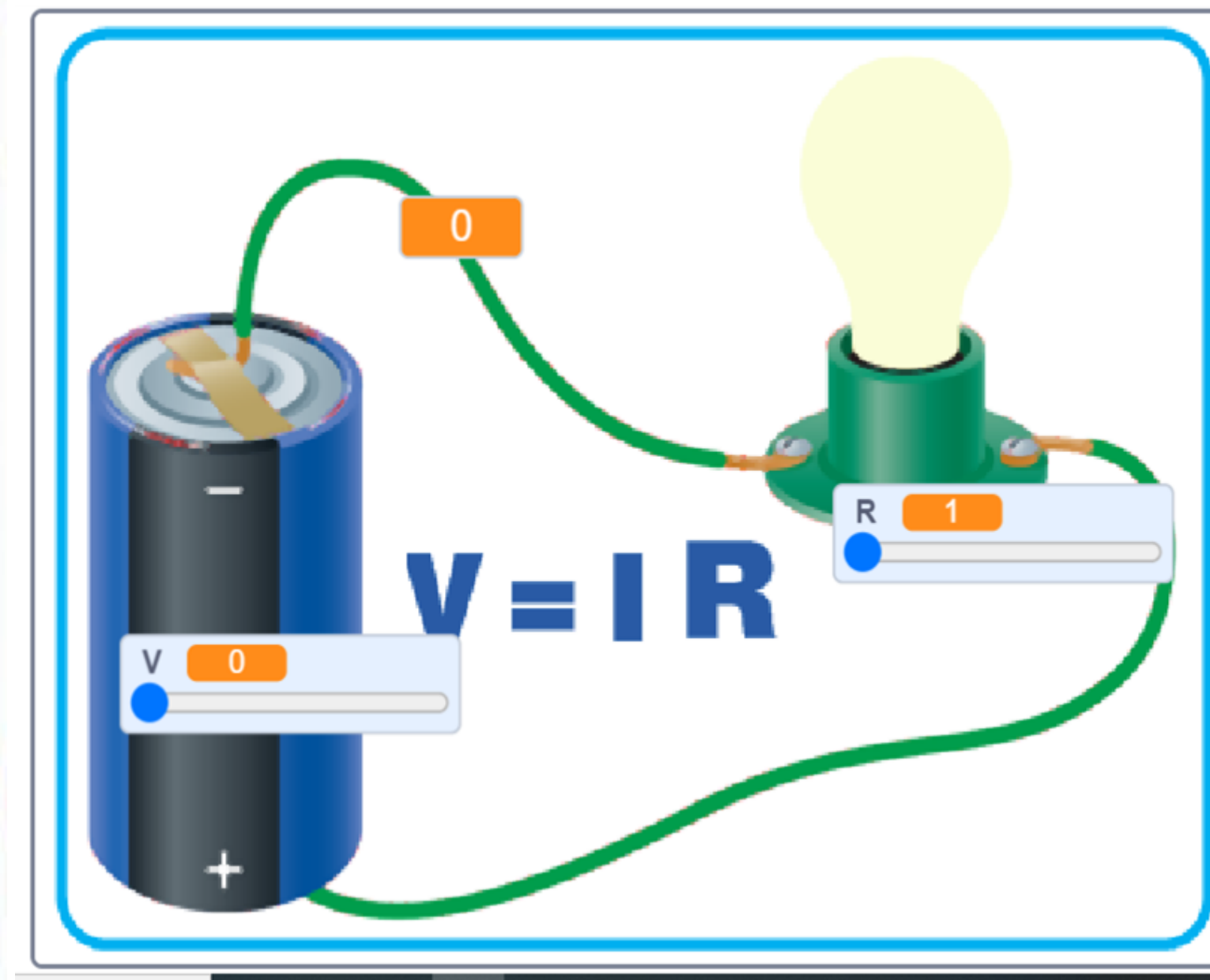
You can find tutorials about Scratch by clicking the "tutorials" button.



# Sample Scratch



<https://scratch.mit.edu/projects/492459233/>

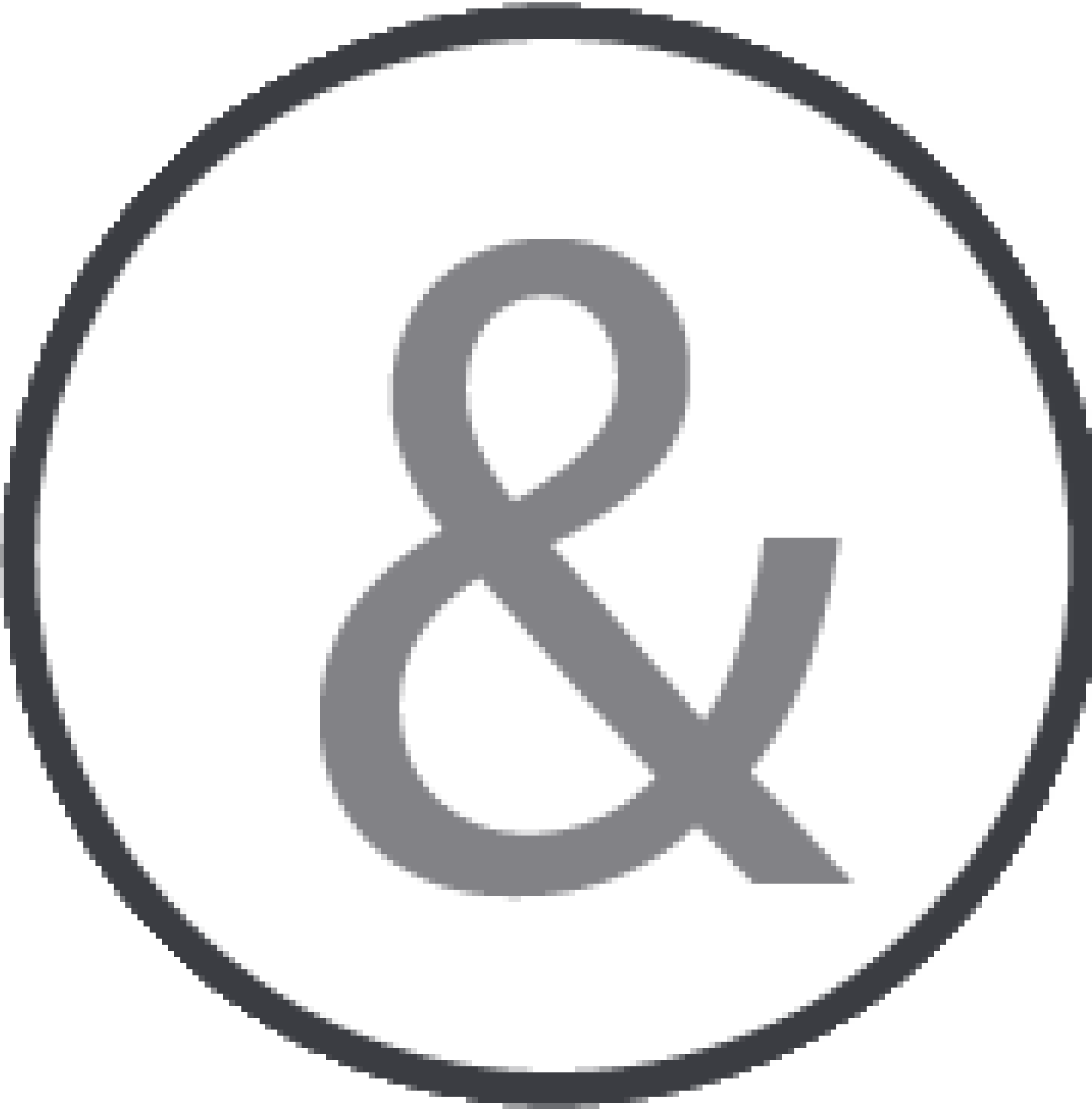


<https://scratch.mit.edu/projects/427202221/>



# Assignment of the Day

- Register on Scratch Platform
- Download and install Scratch IDE



**Thank You!**

[tech@learninglinksindia.org](mailto:tech@learninglinksindia.org)

To learn more about visit [www.planetcode.in](http://www.planetcode.in)

[For Feedback visit https://rb.gy/mi3xw9](https://rb.gy/mi3xw9)