Scratch Coding- Easily Create Interactive Games and Animations (Full Review)

Scratch is a coding platform where students and young learners create their own interactive stories, games, animations and share them with the world. Using Scratch editor, students can code their characters (sprites) to talk, make people fly, animate letters of a name, create music, and many more. All of these creative coding activities can be done by simply dragging and dropping blocks of code and adding interactive features.

[**Related:** Best websites to help students learn coding]

Scratch is also an online community of fellow coders where individuals from all around the world create and share their coding projects. Students can use others' coding projects to create remixes, that is, modified versions of original projects (see below to learn more about remixes).

Scratch also provides parents and teachers with a wide variety of coding resources to use with their kids and students in class or at home. For instance, teachers can create teacher accounts, set up their classes, monitor students work, manage their coding projects, create students accounts, and many more.

The purpose of today's post is to introduce you to Scratch and share with you some of its helpful features. More specifically, the post covers the following points:

- Scratch teacher account
- How to create a class in Scratch?
- How to add students to your class in Scratch?
- What are Scratch studios and how to create them?
- Scratch resources for teachers and educators
- Do students need an account to use Scratch?
- What are Scratch Coding Cards?

- How to make a game or animation using Scratch?
- What are Scratch Starter Projects?
- What are Scratch extensions?
- Scratch app
- What is Scratch Jr ?
- How much does Scratch cost?

1- Scratch teacher account

Scratch provides teachers and educators with a number of extra features which allow them to monitor their students work, manage their contributions, arrange students projects into studios, and create students accounts.

Teachers can request a teacher account by filling this form. You need to provide a username and password and follow the instructions to get your account set up. Scratch team will review your account and when approved you will receive a welcome email.

2- How to create a class in Scratch

Creating classes in Scratch enables you to add students, monitor their progress, and create studios where students can add their projects. Here is how to create a class in Scratch:
- Log into your teacher account
- Select My Classes from the top bar
- Click on New Class
- Type a name and description for your class

3- How to add students to your class in Scratch

Now that your class is created you can start adding students. There are three methods to add students to your class: The first one is through adding individual students by creating usernames for each one. For each username a password will

be automatically generated. The second way is by creating a sign-up link which enables students to create their own usernames and passwords. The third way is to upload a CSV with students usernames and passwords.

4- What are Scratch studios and how to create them?

A Scratch Studio is a virtual space where you get to "create collections of student projects for specific classes or assignments. This makes it easier for you to view their projects throughout their creative process. It also makes it easier for students to collaborate and be inspired by each other's work." Here is how to create a studio for your class:

- Log into your teacher account
- Click on My Classes
- Click on Studios next to the class you want to create a studio for
- Click on New Class Studio
- Type in your data and click Add Class Studio

To add students projects to a studio simply open the studios tab and select the studio you want to add projects to then click on Add projects. You can also enable students to add projects by checking the box next to Allow anyone to add projects

5- Scratch resources for teachers and educators

Scratch offers numerous educational materials designed specifically for the education community. These include:

➥ Scratch in Practice (SIP)

SIP is where teachers can access resources and ideas created by Scratch Team and other educators from all around the world. The educational resources shared in SIP include: activities to use Scratch at home, resources on how students use Scratch to learn across subjects (Curriculum Connections), resources to help you engage students from various backgrounds in using Scratch, resources to support

students peer learning, and resources to help students use Scratch with other people from all around the world.

➥ Educator Guide

The Educator Guide provides teachers and educators with helpful tips and ideas on how to use Scratch activities and projects in class. These include workshop ideas, tips on how to use each activity with students, tutorials and checklists to help with preparing for the workshop, and many more.

➥ Creative Computing Curriculum

Creative Computing Curriculum is created by the Creative Computing Lab at the Harvard Graduate School of Education and embeds a collection of ideas, activities, and strategies on how to use Scratch to design creative learning experiences.

Activities in Creative Computing Curriculum "encourage exploration of key computational thinking concepts (sequence, loops, parallelism, events, conditionals, operators, data) and key computational thinking practices (experimenting and iterating, testing and debugging, reusing and remixing, abstracting and modularizing)."

➥ Scratch Educator Meetups

Scratch Meetups is where you meet and connect with teachers and educators from all over the world, learn about how they use Scratch and exchange coding insights and ideas.

6- Do students need an account to use Scratch?

Students do not need a Scratch account if they simply want to play coding projects created by others, access forums, and create their projects. However, without an account students will not be able to save and share their coding projects and participate in Scratch social community (e.g., add comments, share posts, etc).

7- What are Scratch Coding Cards?

Scratch coding cards offer instructions and tips to help students play coding games and learn to construct interactive creations. These coding cards are available for free download in PDF format.

8- How to make a game or animation using Scratch?

The Scratch Ideas section provides a host of step-by-step tutorials to help students and young learners use Scratch programming language to create interactive stories, games, and animations. Each of these activities comes with its own set of coding cards and an educator guide. Examples of coding activities featured in Scratch Ideas include:

➥ Imagine a World

In this activity, students use Scratch to create their own version of the world. They can make animals talk, people fly, and almost anything they want. The purpose is for them to unleash their imaginative power to code their own world.

➥ Animate a Name

Students use Scratch to aniname names and bring them to life. They can make letters spin, grow, interact with each other, change colors speak a sound, etc.

➥ Make Music

In this activity, students use Scratch editor to create their music. They can make songs, sounds, beats, etc.

➥ Animate a Character

In this activity, students use Scratch to bring characters to life. Here is how it works: students pick a background then select a sprite (e.g., a penguin, a shark, a puppy, a panther, an octopus, a parrot, etc) then add features to make it interactive (e.g., speak words).

➥ Talking tales

In this activity, students make their characters talk and move around. Using Scratch, they choose a sprite, then add a text-to-speech block to make it speak. Students can use different backdrops to move their characters around.

➥ Code a Cartoon

In this activity, students code animations to bring their characters to life. They can make them talk, jump, fly, run, etc.

➥ Create a Story

Students use Scratch to tell a story. They can add backgrounds, construct scenes, make conversations, and many more.

➥ Make It Fly

In this activity, students make characters fly. They can choose any character they want and make it fly anywhere.

Image credit: Scratch Teacher Guide

9. What are Scratch Starter Projects?

Starter Projects provide students with prompts to create remix coding projects. A remix, as defined by Scratch, is "when a Scratcher makes a copy of someone else's project and modifies it to add their own ideas (for example, by changing scripts or costumes), the resulting project is called a "remix". Every project shared to the Scratch website can be remixed."

Here is how it works: students browse through the collection of starter projects. These projects are arranged into the following categories: Animation, Games, Interactive Art, Music and Dance, Stories, and Video Sensing. Students select a project and click to open it. In the project's main page they will see instructions and remix ideas to try out.

Students click on the 'See Inside' button from the top right corner to open the project in Scratch editor and start adding their own code and suggestions to the project. Some of the starter projects that stood out to me include Dance Party (students are required to add their own sprites to the dance party), Animate the Crab (students use Scratch to remix and add different expressions to the crab), Wizard Spells (Students are required to add their own spells to this interactive animation), and Piano (students use Scratch to change what the piano looks like, add higher or lower notes, etc).

10- What is Scratch 3.0?

Launched in January 2, 2019, Scratch 3.0 is an improved edition of Scratch. Scratch 3.0 comes with more features and functionalities including a new sound editor, new collections of sprites, and a wide variety of new programming blocks. More importantly, Scratch 3.0 allows students to access and work on their Scratch projects in their tablet (new) as well as on their laptops and desktops.

11- What are Scratch extensions?

The Scratch editor embeds a wide variety of extensions, that is, extra blocks that offer additional services and functionalities. For instance, there are extensions that let you add sound, translate languages, program physical objects and many more. To access Scratch extensions, open Scratch editor and click on 'Extension' button in the bottom left corner. When you click on an extension, a new block will be automatically added to your project. You can add several extensions to the same project.

12- Scratch app

The great thing about Scratch app is that students can download it and access Scratch without the need for Internet connection. The app is currently available on Windows and Mac devices.

13- What is Scratch Jr ?

Scratch Jr is a simplified version of Scratch designed for kids ages 5 and 6. The app helps kids use Scratch to create their own interactive games and stories. Scratch Jr is available for free in both the App Store and Google Play.

14- How much does Scratch cost?

As of writing this post, Scratch is free for everyone.

More sources:

Best coding resources for teachers and students (by ETML)
Getting started with Scratch (PDF guide by Scratch)
Scratch FAQ
How to create a teacher account in Scratch (Guide by Scratch)
How to Make a Story in Scratch (video tutorial by Scratch Team)
How to Make an "About Me" Project in Scratch (video tutorial by Scratch Team)
How to Make a Virtual Town in Scratch (video tutorial by Scratch Team)
How to Make a Virtual Pet in Scratch (video tutorial by Scratch Team)

How to Make a Catch Game in Scratch (video tutorial by Scratch Team)
Scratch video tutorials (By Scratch Team)