

## **Scratch Day Activity Ideas**

Scratch Days come in all shapes and sizes! We encourage organizers to design activities and experiences that are most relevant to the interests of your community. Consider convening a committee of young people to help plan the event or survey students to get an idea of what workshops would be most inspiring (see our Scratch Day Youth Leadership document for more information). The activity ideas below are some suggested offerings gathered from Scratch Foundation resources, partners, and from our past experience hosting Scratch Day in person. You are welcome to use or remix these ideas as you plan your Scratch Day agenda. (See our website for more on How to Host a Scratch Day Event.)

#### **Imagine** Getting Started

Show participants how to create their first project using Scratch or ScratchJr with these Plan

activities. Invite

**Getting Started with Scratch** (link) **Post** 

> Learn Scratch fundamentals, create your first project, and share it with the community with the help of our Getting Started resources.

ScratchJr Activities (link)

Try out the ScratchJr app, where caregivers and children can work together to create their own interactive stories and games.



## **Project Workshops**

Mix and match these activities to use throughout your Scratch Day. Find our printable, student-facing coding cards, posters, Starter Projects, and more in the Scratch Foundation's Learning Library.

#### **Animate Your Name** (link)

Make your name come to life! Animate the letters of a name, initials, or favorite word.

#### Scenes From A Story (link)

Animate your favorite scenes from a book, movie, or play or create your own story.

#### **Interactive Greeting Card (link)**

Create a card for a friend or family member. You could remix a card template or create your own.

### Flying Character Game (link)

Design a game to help a character avoid flying into obstacles.

#### **Create A Virtual Pet (link)**

Code your own virtual pet with animations, sounds, or other effects.

#### Make a Virtual Stamp Collage (link)

Use the Pen extension stamp block and create art with sprites and code.

**Imagine** 

**Interactive Poster** (link)

Plan

Invite

Post

Have a favorite hobby, sport, book, or other passion you'd like to teach others about?

Make an interactive poster to share key information.

#### **Explore Video Sensing (link)**

Use your laptop's built-in camera or an external webcam to interact with sprites on the stage.

## **Virtual Passport of Your Scratch Day** (link)

Find or design sprites to represent the activities you tried on Scratch Day and add them to a virtual passport to share about

your experience, what you learned, and

how much fun you had.

## Record an Audio Message, or use the Music or Note Blocks to Create a Song (link)

Use the recording function in Scratch to record yourself celebrating Scratch Day, singing a song, or sharing your favorite Scratch advice. Or use the note blocks from the sound library or the Music extension blocks to create an original sound effect, musical score, or instrument.

#### Try Face Sensing (link)

Use Face Sensing blocks to create games, interactive stories, and accessible projects. These Al-powered blocks use a machine learning model to detect if they see a face and where a nose, eyes, ears, mouth, etc., are. The blocks do not collect or store personal information, like recordings or images of your face, making it a safe, fun, and creative way to explore the possibilities of Al.

#### **Design Your Own Sprite** (link)

Use the paint editor to create an original sprite, remix a sprite from the library, or draw and upload your own.

#### Pong (link)

Design and code a bouncing ball game, then challenge your friends to play.

#### Create a Maze (link)

Navigate a sprite with arrow keys through a maze by coding impassable walls using color sensing. For a challenge, add obstacles or a second sprite to race against.

#### Use a Project Idea Generator (link)

Search Scratch to find a silly prompt generator to get the project ideas flowing, or create your own.



## Imagine Unplugged Creative Learning Activities

Plan Include <u>unplugged activities</u> that encourage experimenting with materials in new ways!

Invite

Post

# LEGO and Scratch: "Build the Change" (link)

Create building solutions to real-world sustainability challenges using the objects you have around you! Then, create a Scratch project that incorporates the model, bringing to life ideas on how to integrate sustainable elements.

#### Making Faces and Stop Motion (link)

Use craft materials, small objects, and recyclables to design your own self portrait, inspired by a Tinkering Studio activity. Consider bringing it into Scratch to animate!

#### Scratch Printable Blocks (links below)

Use these <u>3D printable Scratch blocks</u> (shared by Sunyani Senior High School, Ghana) or <u>these 3D blocks</u> (created in partnership between Nextech, the SEC, and Process Art Studio) to create your own unplugged Scratch script. Or use our <u>2D printable Scratch block</u> posters.

#### Scratch Tips Poster, Book, or Zine

Pick from a variety of scrap papers, drawing tools, stickers, etc., and make your own informational resource to share your Scratch knowledge with others! You can even photograph it, and upload the images into Scratch to animate.

#### Create a Morse Code Bracelet (link)

Computers speak the language of ones and zeros, and humans have used forms of communication like Morse Code to speak without words through electrical pulses. Recreate your name or initials using dots and dashes represented by beads using this helpful guide from the National Inventors Hall of Fame.

#### **Pixel Pals**

Design your own Scratch sprite in the 8-bit style on grid paper. Then, you could use fuse beads/Perler Beads to create a physical copy of your creation. Or try Pixel Programming with a partner.

#### Scratch Design Journal (link)

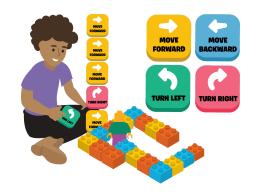
Use colored paper, markers, and more to create a cover for your design journal. Inside can be templated pages to store ideas, reflections, etc.

#### ScratchJr Printable Blocks (links below)

Use the <u>printable ScratchJr blocks</u> on this page to create your own unplugged project activity. Or explore the <u>ScratchJr Tactile 3D printable blocks</u> open source project from Sistema THEAD, aimed to be inclusive of students with visual or other impairments.

#### **LEGO Maze Coding (link)**

Design a simple maze using LEGO bricks. Now, using four commands: move forward, move backward, turn left, and turn right, can you direct a character through the maze successfully by writing an algorithm on a piece of paper? No LEGO bricks? Try cup stack coding.



#### Imagine Collaborative Activities

Plan Participants can work in groups on a collaborative Scratch project.

## Invite Use a Webcam (link)

Post Use <u>video sensing</u> or <u>face sensing</u> to insert yourself and others into <u>an interactive</u>

<u>Scratch project</u> with a webcam.

#### **Dance Party** (link)

Code a <u>dancing sprite using loops</u> and costume changes. <u>Create a dance party project</u> with each person's favorite sprite and watch sprites dance together. Or <u>code a sprite to dance based on "loudness"</u> and see if you can work as a group to make it dance.



# Pair Programming Cup Stack Coding (link)

For some offline fun, using simple commands: up, down, left, and right, one "programmer" directs another "computer/robot" participant to try and stack up cups. See this resource from Code.org for more instruction. Now try coding a project together in Scratch, taking turns as the programmer directing each other on which blocks to use and the sequence.

#### **Activity Swap/Show and Tell (link)**

Show off and explain your favorite Scratch creations, then teach your skills to the group.

#### Make a Beat (link)

Add loops or beats from Scratch or your own recordings, pass it on to a friend, and layer the beats to make a song. Collaborate to create a band using instrument sprites. Or use keyboard keys, video sensing, or a Makey Makey to play it together.

#### **Creative Character Conversations (link)**

Take turns coding a conversation between two favorite characters.

#### **Extending the Story** (link)

Write the beginning of a <u>story</u> and invite others to finish it by remixing and adding the next scene, a new character, or more dialogue.

#### Simon Says Conditional Statements (link)

Explore if/then and while conditional blocks using an unplugged game of Simon Says. One person functions as the programmer while the participants, as computers, need to determine if statements are true or false and then act accordingly. Now try using a conditional block in a Scratch project, like coding an effect if sprites touch or while the mouse is clicked.

### Imagine Physical World Activities

Plan Make connections to the physical world with these hands-on activities.

Invite

Micro:bit and Scratch (link)

**Post** 

Create a game controller or trigger actions in a Scratch project with a micro:bit device.

Vernier Go Force and Scratch (link)
Measure force as you push and pull, and interact by shaking, spinning, free falling and more.

#### Paper Planes and Pair Programming (link)

See our lesson plan and test your skills writing or following clear step-by-step instructions to create a paper plane and see if it flies. Now in Scratch think about writing clear instructions for a program. Were you successful?

#### Makey Makey and Scratch (link)

Turn conductive items into keyboard keys by programming Makey Makey with Scratch. Create games, instruments, or interactive drawings.



## **Scratch for Educators and Caregivers**

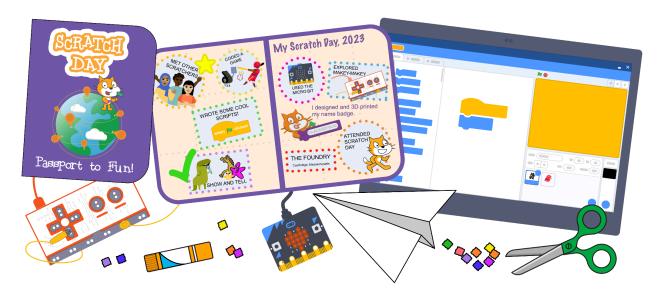
Introduce members of your community to Scratch with these resources.

Scratch in Your School (links below)
Start your own Scratch Educator Meetup.

And/or explore our Learning Library for lesson plans, coding cards, and inspiration. You can also find some of our past workshops and conference talks on our Scratch Foundation YouTube channel.

### **Scratch in Your Community**

Start a conversation: How might you bring Scratch to your children's clubs and camps? See our <u>Creative Learning Guide</u> for Families or the <u>Family Creative Learning Facilitator Guide</u> from The Creative Communities research group at the University of Colorado Boulder.



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