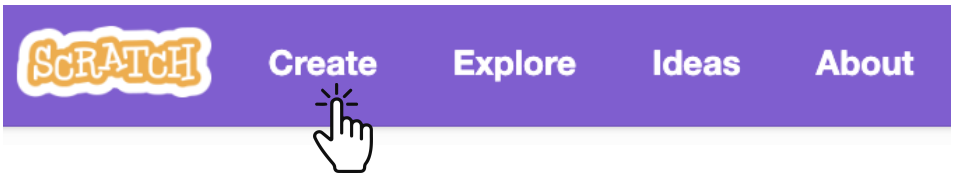
Getting Started with SCRATCH

Create your own games, animations, interactive stories, and more!

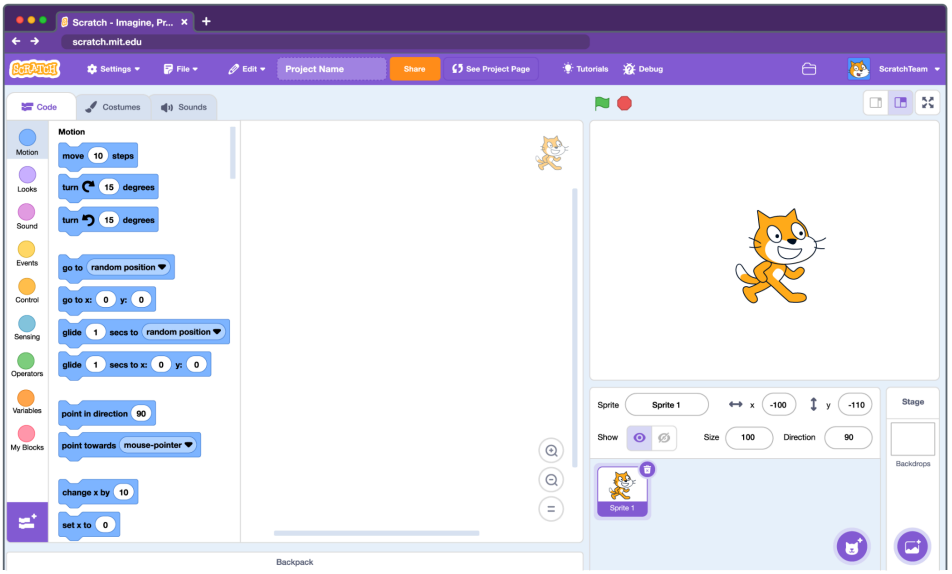
Getting Started

You can use Scratch online at: scratch.mit.edu

Once you've navigated to scratch.mit.edu, click **Create**.



This will bring you to the **Scratch Editor**, where you can start creating projects. (Create or log in to your free Scratch account to save projects.)



If your computer uses an older operating system, or your internet connection is unreliable, you can **download Scratch** and use it offline.

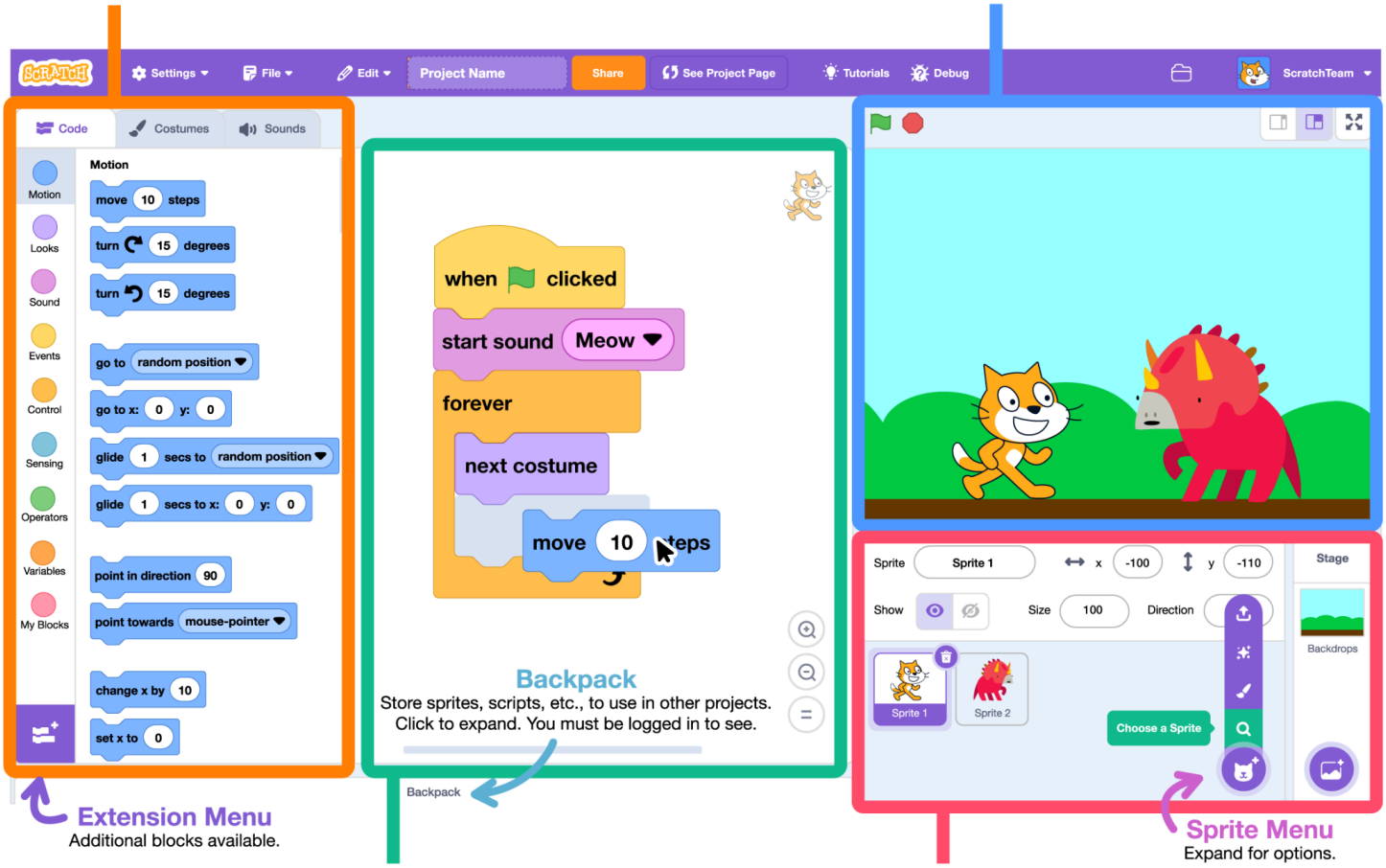
Visit https://scratch.mit.edu/download for information on downloading and installing the Scratch app.

The Scratch Editor

The Scratch Editor is where you create projects in Scratch. Here are its main parts:

Block Palette
Blocks for coding your projects.

The Stage
Where your creations come to life.



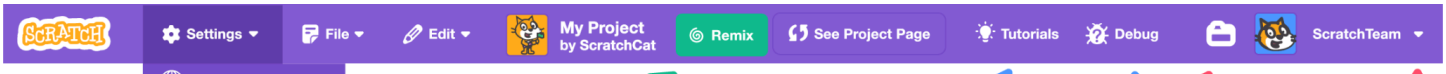
Extension Menu
Additional blocks available.

Backpack
Store sprites, scripts, etc., to use in other projects. Click to expand. You must be logged in to see.

Sprite Menu
Expand for options.

Coding Area/Script Area
Drag in blocks and snap them together.

Sprite Area
Click the thumbnail of a sprite to select it.



Language and Color
Original or high contrast blocks available.

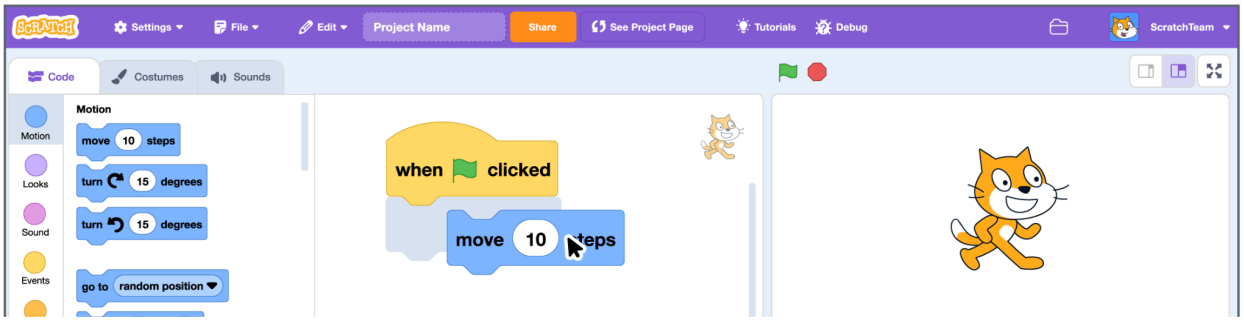
Share or Remix
You must be logged in to see.

Help

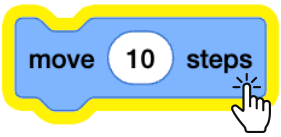
My Stuff
Access saved projects.

Let's Code!

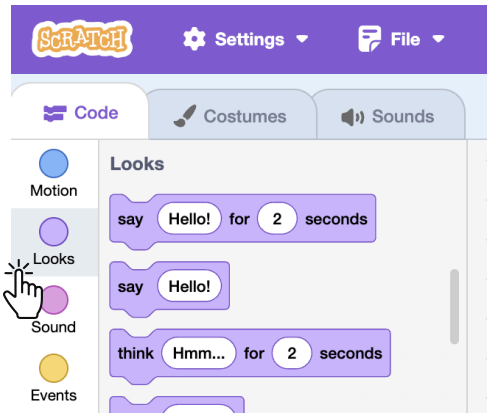
To code projects in Scratch, you snap together blocks. Start by dragging out a **"move" block**.



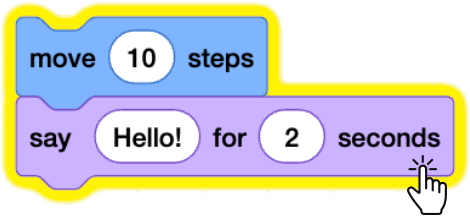
Click the block to try it. Does your cat move?



Now say something!
Click the **Looks** category.



Drag out a **"say" block**.
Snap it onto the **"move" block**.
Click on your blocks to try them.



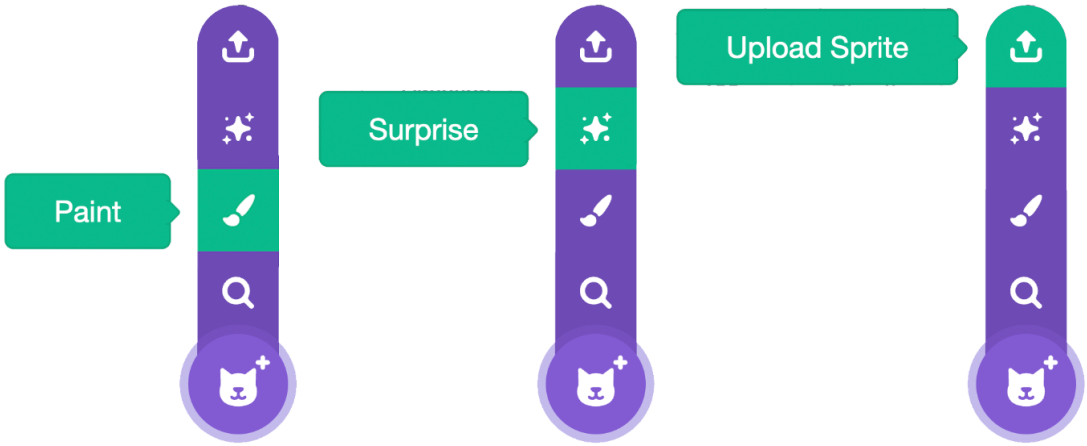
What Is a Sprite?

In Scratch, any character or object is called a sprite. Every new project in Scratch starts with the Cat sprite.

Want to choose a different sprite?

Click the **New Sprite** icon to choose a sprite from the library.

Or, hover over the New Sprite icon to see more options to draw your own sprite, get a surprise sprite, or upload an image from your computer.



Want to **delete a sprite** from your project?

First, select the sprite by clicking on its thumbnail in the Sprite List. Then, click the trash can to delete the sprite.

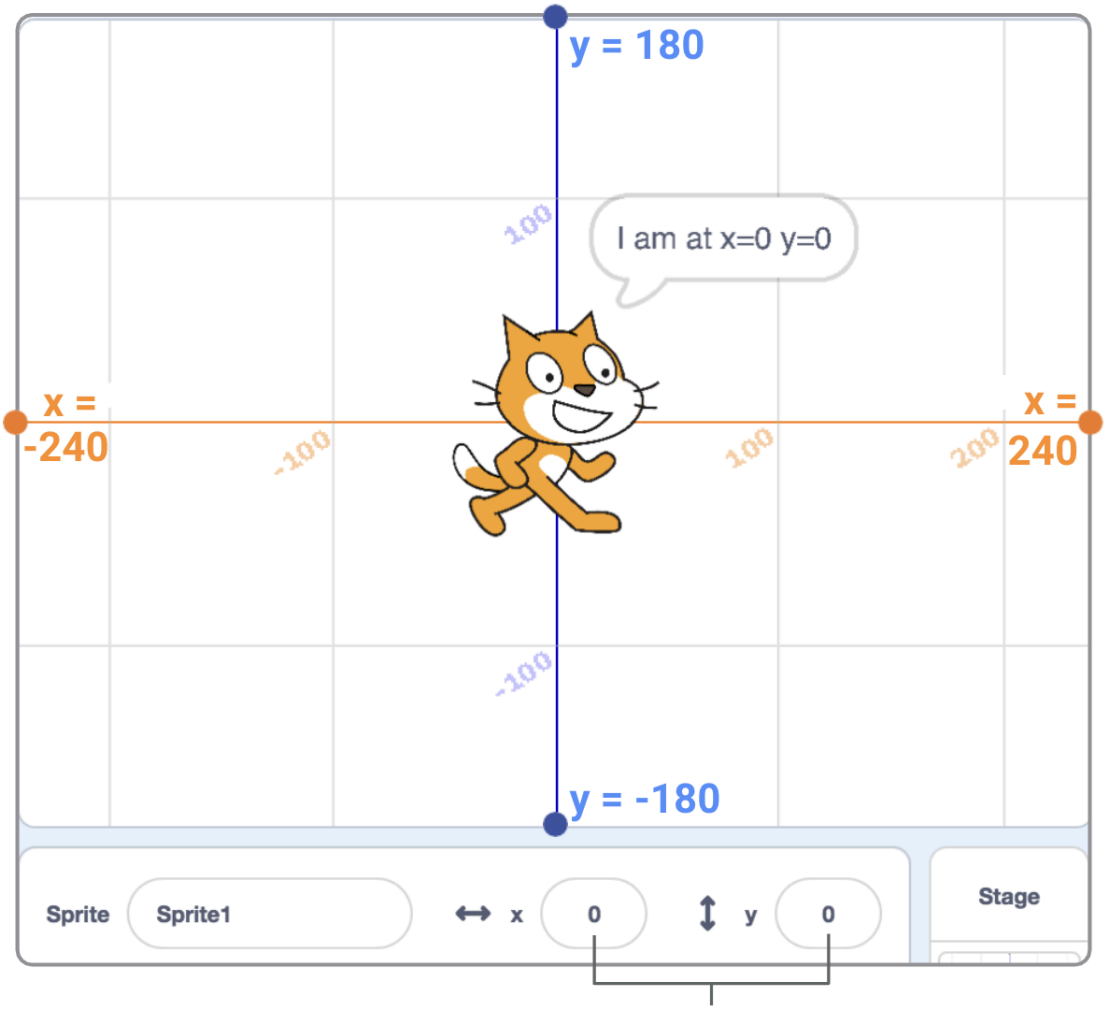
Where Is Your Sprite?

Every sprite has an **x and y position** on the Stage.

x is the position of the sprite from left-to-right.

y is the position from top-to-bottom.

At the very center of the stage, x is 0 and y is 0.

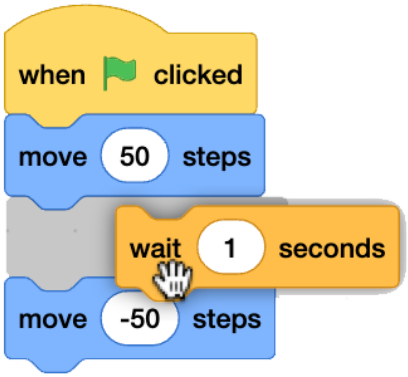


When you move your sprite, you can see its x and y position change.

Quick Tips

Something not working as expected?

Add temporary waits to slow down the action and give you time to process if a piece worked or not. Once you know the code is working, you can remove these waits.



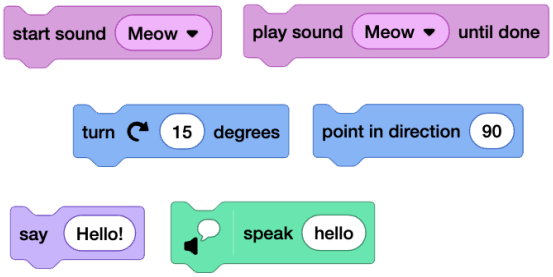
Try adjusting the order/the sequence of the blocks. Ask yourself: What needs to happen first? What needs to happen second?

First...

Second...

Third...

Separate the blocks and click on each individually to see what it does. Is there a **similar but different** block option that might work better in your sequence?

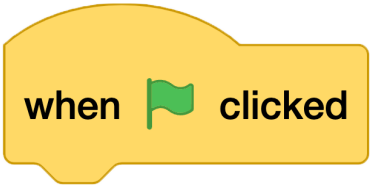


Debugging is finding the errors in your code. Click on the bug in the Scratch Project Editor to find helpful tips on how to find and fix issues.

Next Steps

Many Scratch projects are started when the user clicks the green flag above the stage.

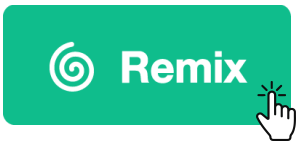
Click the **Events** category and drag out the block you want to activate your code sequence. Attach your code sequence to the event block and click the green flag to test.



You can choose to share your projects with the global Scratch community by clicking the **Share** button on your project page.

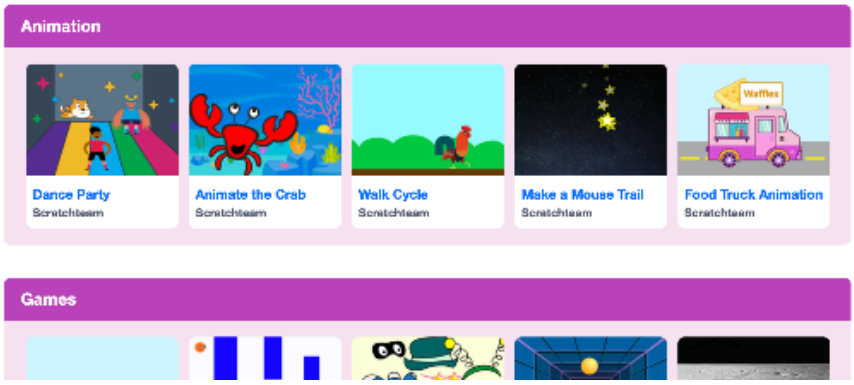
- Sharing projects allows others to experience your program and see inside to explore your code.
- Projects can be unshared at any time (under “My Stuff”). And commenting can be turned on or off, based on your preference.

Embrace remix culture! Remixing is encouraged in the Scratch community, as it is a great way to collaborate and connect with others and can lead to new ideas and also help others grow as creators. Click the **Remix** button on any shared project to create a copy. Then, make a meaningful change to the project to personalize it and make it your own.



Starter Projects

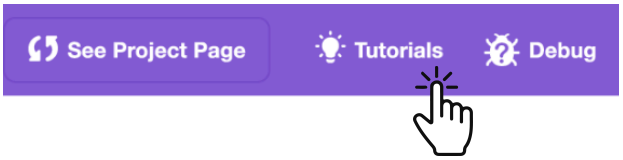
Starter projects include some simple code you can remix to make your own creations, so you don't have to start from scratch! Find some at scratch.mit.edu/starter-projects. "See Inside" to get started.



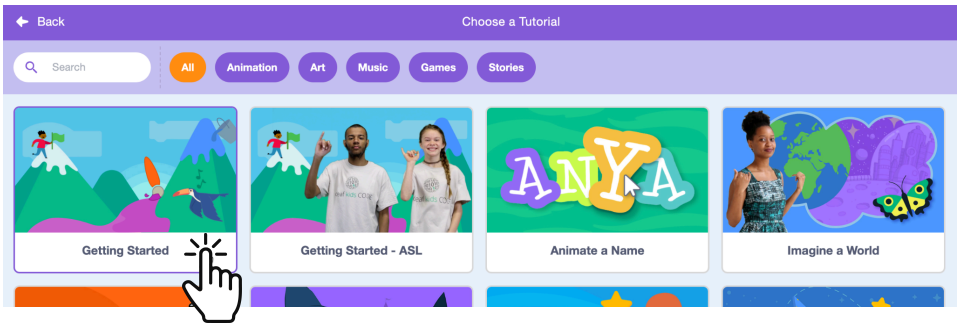
Tutorials

There are a range of tutorials available in the Scratch Tutorials Library, which guide learners in creating projects with Scratch. Students can get started making their own stories, animations, and games.

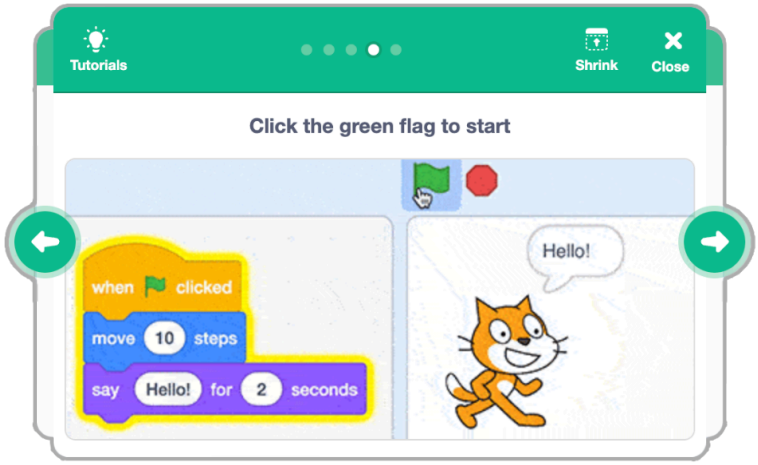
You can get to the **Tutorials Library** from the Scratch Editor by clicking the Tutorials button.



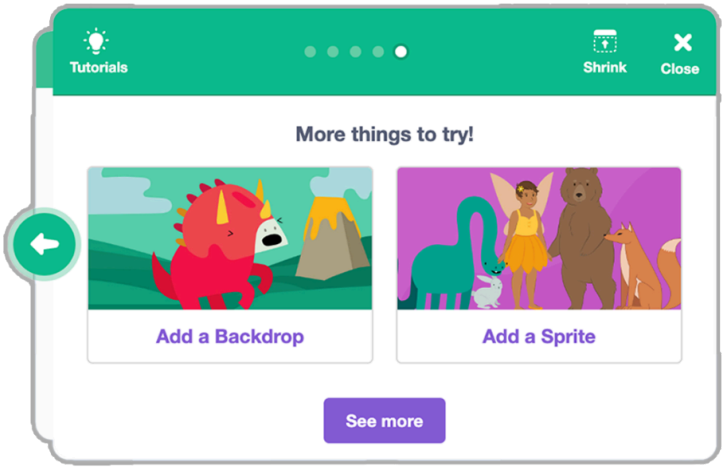
The **Getting Started tutorial** will walk you through the basics.



Once you've selected the tutorial, it will open in the Scratch Editor. Click the green arrow to see each step.



When you've reached the end of a tutorial you can select from another suggested tutorial, click the "See More" button to see all the Tutorials, or click the close button to continue to customize your project.



You can also look for **video tutorials** on our official Scratch YouTube page: youtube.com/c/ScratchTeam.

Coding Cards

The Scratch **Coding Cards** provide another way to learn to create projects with Scratch. Download the cards at **scratch.mit.edu/ideas** (individual card sets on each topic are also available).

On the back of each title card is a list of cards in the set. In each set, you'll find examples of what you can create and cards walking you through each step of creating a project.

Once you've completed a card set, customize your projects by adding your own sprites, backdrops, sounds, and more!

The **Animate a Character** cards are a great set to start with.

See the front of cards for what you can create…

…and flip the card over to see how to do it.

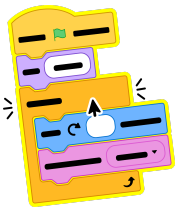
Get Creative!

Tinker, explore, and use your imagination as you create projects. There are many different ways to make Scratch projects unique:

Create your own unique and original sprites! See our Sprite Creation Cards or video tutorials for more information.

Choose a sound or record your own. See our Sound and Music Cards or video tutorial for more information.

Try changing numbers or adding blocks to your code to see what happens. Experiment and customize your project however you want!



Level Up!

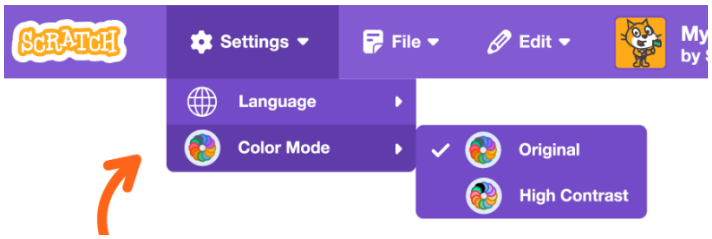
Ready to learn more about computational thinking practices? See our guides, video tutorials, and coding cards on:

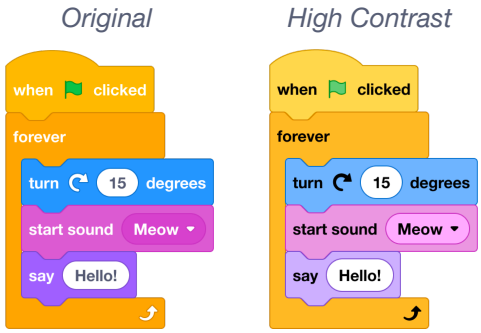
- Conditional Statements
- Variables and Lists
- My Blocks custom blocks

Choose Your Color Mode

We want to make sure everything on the site is easy to read so more people can express themselves on Scratch, and we want to follow Web Content Accessibility Guidelines. So Scratchers have the option to use High Contrast blocks, which will be easier for some people to read, or stick with the original block colors as they work in the project editor.

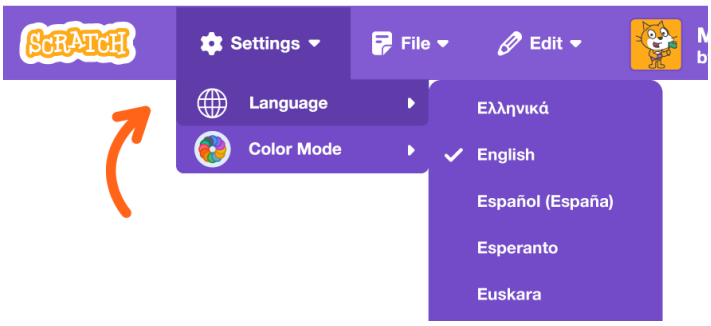
Set your mode in the project editor under Settings > **Color Mode.** And you can always toggle the color mode back and forth if your preference changes.

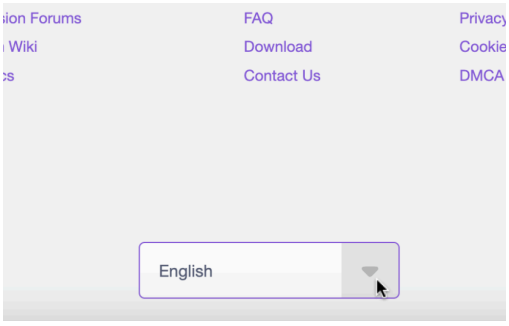




Choose Your Language

Do you, or a Scratcher you are working with, read/work in a language other than English? You can adjust the language of the project editor under Settings > **Language**. Or set the language at the bottom of many of our site pages.





Educators

Looking for even more resources?

- **Teacher Account Guide** for more information on setting up teacher accounts and managing classes
- **Studio Guide** for more on creating studios
- **Lesson plans:**
  - "Bring Yourself Into Scratch" Lesson Plan - use Scratch to help your students get to know their classmates and build community
  - "Activity Swap" Lesson Plan - students use Scratch to share something they are passionate about and then "swap projects" with each other to remix and try out different ideas
  - "Exploring Scratch & AI: Possibilities & Pitfalls" Lesson Plan - explore the possibilities and pitfalls of AI and face detection, using the Scratch Face Sensing blocks to create games, interactive stories, and accessible projects
  - "Experiencing Creative Learning: Paper Planes, Turtle Graphics, and Computational Concepts" Lesson Plan - explore the computational concepts of decomposition and sequence in unplugged and digital environments by creating paper planes and then a Scratch program to draw shapes
  - "Make Some Noise: Exploring Sounds and Music in Scratch" Lesson Plan - explore some of the ways you can add sound to Scratch projects by using sounds from the library, recording, uploading, or using music blocks
  - Scratch "Build the Change" Facilitator Guide - create building solutions to real-world sustainability challenges using the objects you have around you, and then create a Scratch project that incorporates the model, bringing to life ideas on how to integrate sustainable elements
  - Scratch Educator Guides - individual guides are also available
- **Scratch Design Journal** to help students imagine, plan, iterate, and reflect throughout all of the phases of their project's development
- **Show-and-Tell Sharing Sheet** or **Project Gallery Walk Self Reflection and Peer Feedback Sheet** for use with students when sharing their work
- **Debugging Strategies Posters** and **Reflection Worksheet** for a collection of possible strategies to use to help your students get unstuck

Tip: If you'd like to translate this guide, **click here to make a copy** of this Google doc.