



## How to Use ScratchJr to Code

### What is ScratchJr?

[ScratchJr](#) is a free educational app designed to teach computer programming to young children in a playful and inviting way. In ScratchJr children (and adults!) can snap together different programming blocks to control the actions of ScratchJr characters.

Within ScratchJr, children can program characters to move, change appearance, and make noise. Children also have the option to use the Paint Editor feature to decorate characters and backgrounds and to add in creative elements to projects.

### Ways to Use ScratchJr with Your Grandchild

#### 1. Tell stories and make movies.

ScratchJr was designed with storytelling in mind. If you're not comfortable helping with the programming, you can engage your grandchild through storytelling instead. Tell stories (about your family, fantasy, superheroes, Jewish holidays, or anything else your grandchild enjoys) and work together to decide which parts to tell in ScratchJr. Then let your grandchild do the ScratchJr programming. When the program is ready, you can enter Presentation Mode and watch the story like a movie!

*Story Ideas:*

- Tell the Passover story to your grandchild and help them recreate scenes of it in ScratchJr.
- Read a favorite picture book. We recommend [Where the Wild Things Are](#), [Knuffle Bunny](#), or [Stellaluna](#).
- Make an original story with your grandchild. Take turns adding on to the story one sentence at a time. Then, work with your grandchild to decide which parts of the story they will put on ScratchJr.

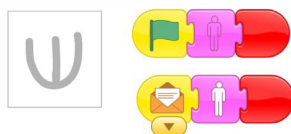
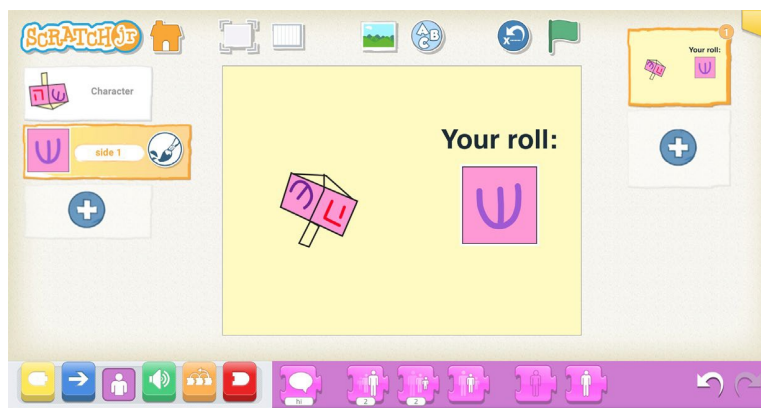
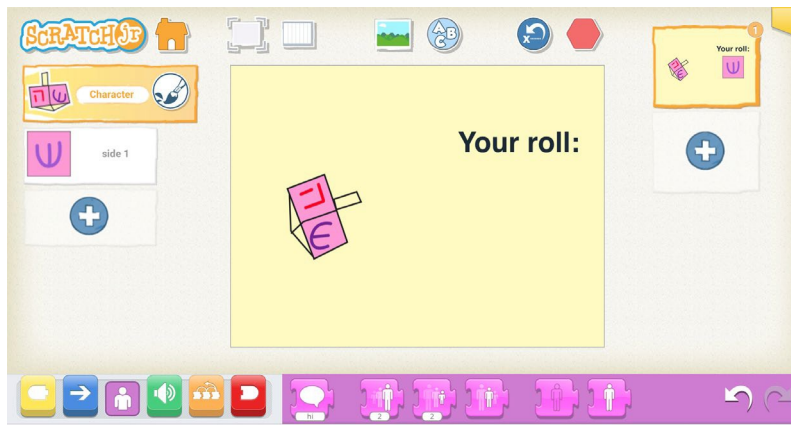
## 2. Make and play games.

ScratchJr offers more advanced blocks that allow children to interact with their characters and the characters to interact with one another. These functions are great for creating games.

*Game Idea:*

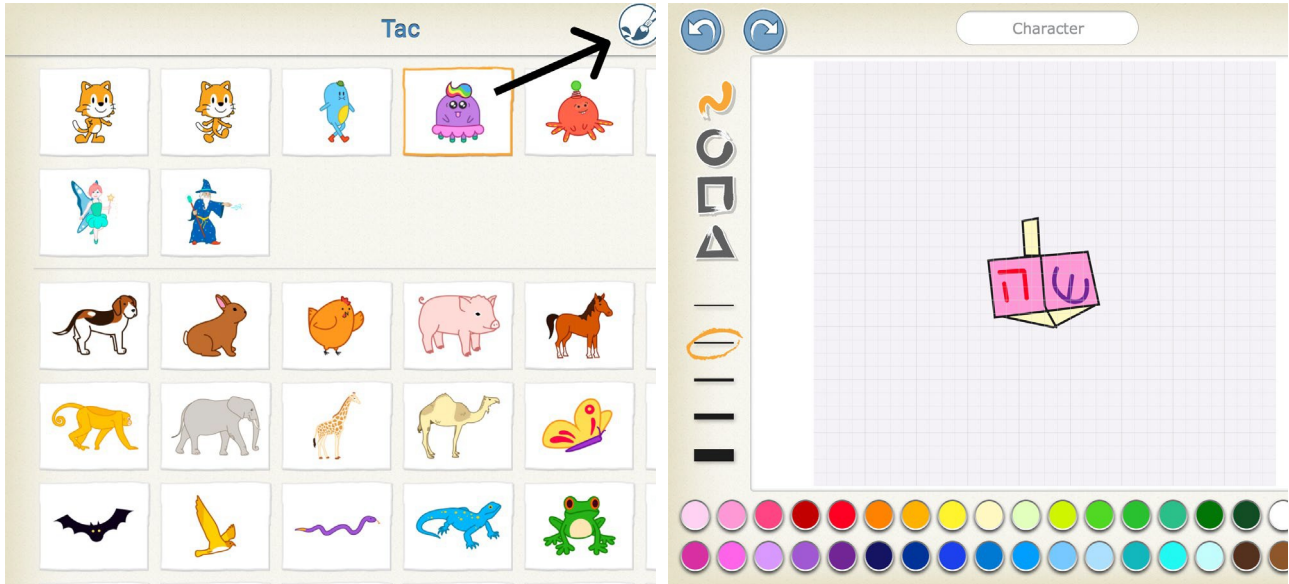
Before Hanukkah, help your grandchild create a dreidel game on ScratchJr. Use the Paint Editor (see next section) to create a dreidel. Program the dreidel to spin, and then when tapped, the dreidel will stop and one side of the dreidel will be displayed.

See sample code:

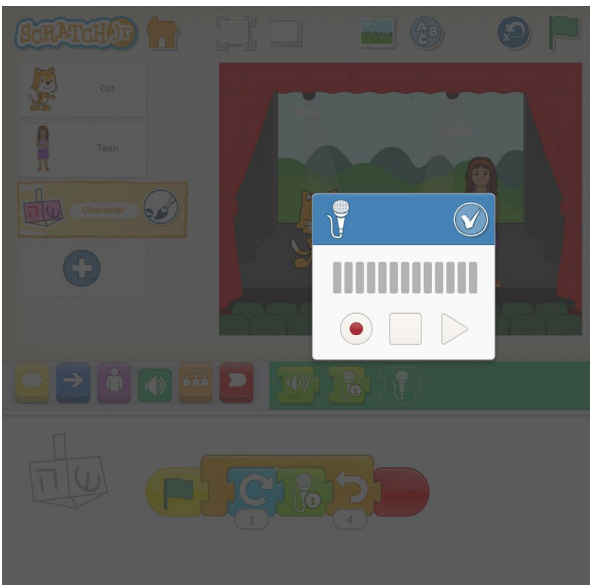


### 3. Create art and music.

Another way to engage with ScratchJr is through the art features. Paint Editor is available for both characters and backgrounds. Help your grandchildren customize and create characters for different stories or projects.



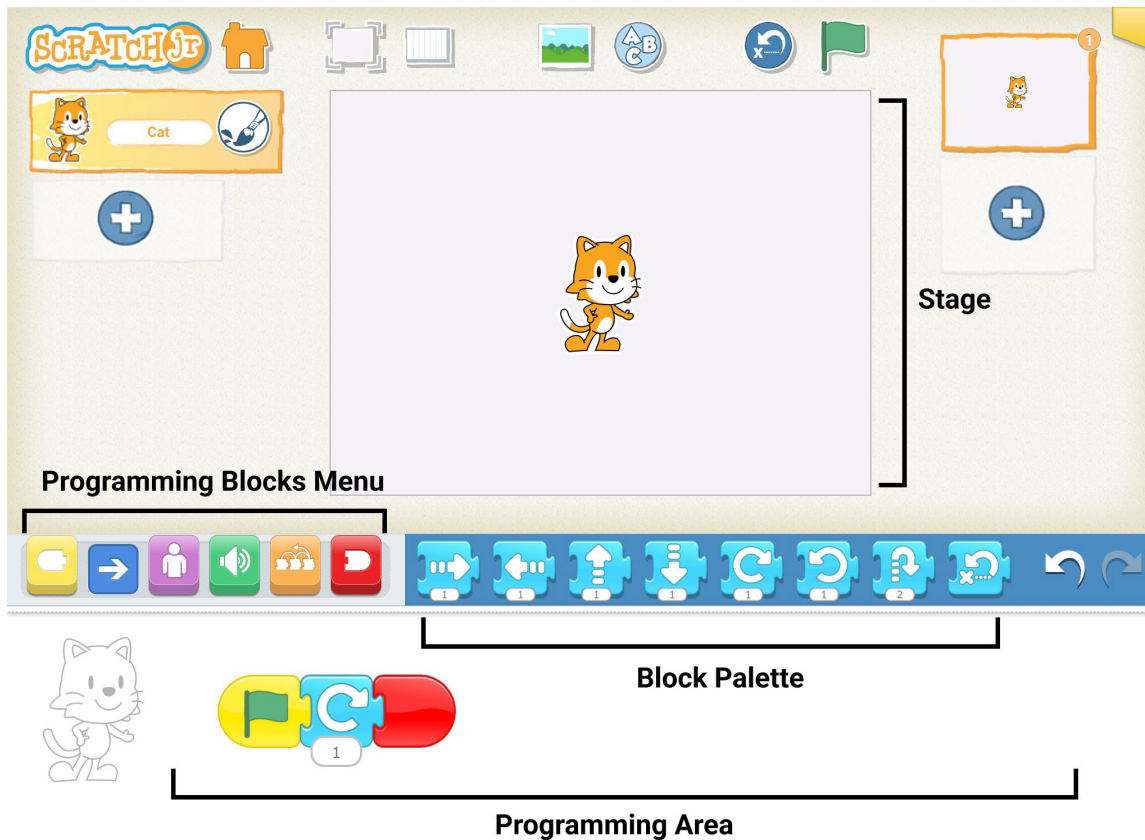
Or record a song with the Voice Record block in the green Sound block palette.



# ScratchJr 101: App Tutorial

## 4 programming areas

ScratchJr has four areas to know: Stage; Programming Area; Programming Blocks Menu; Blocks Palette.



**Stage** is where the characters will execute any program that you make for them.

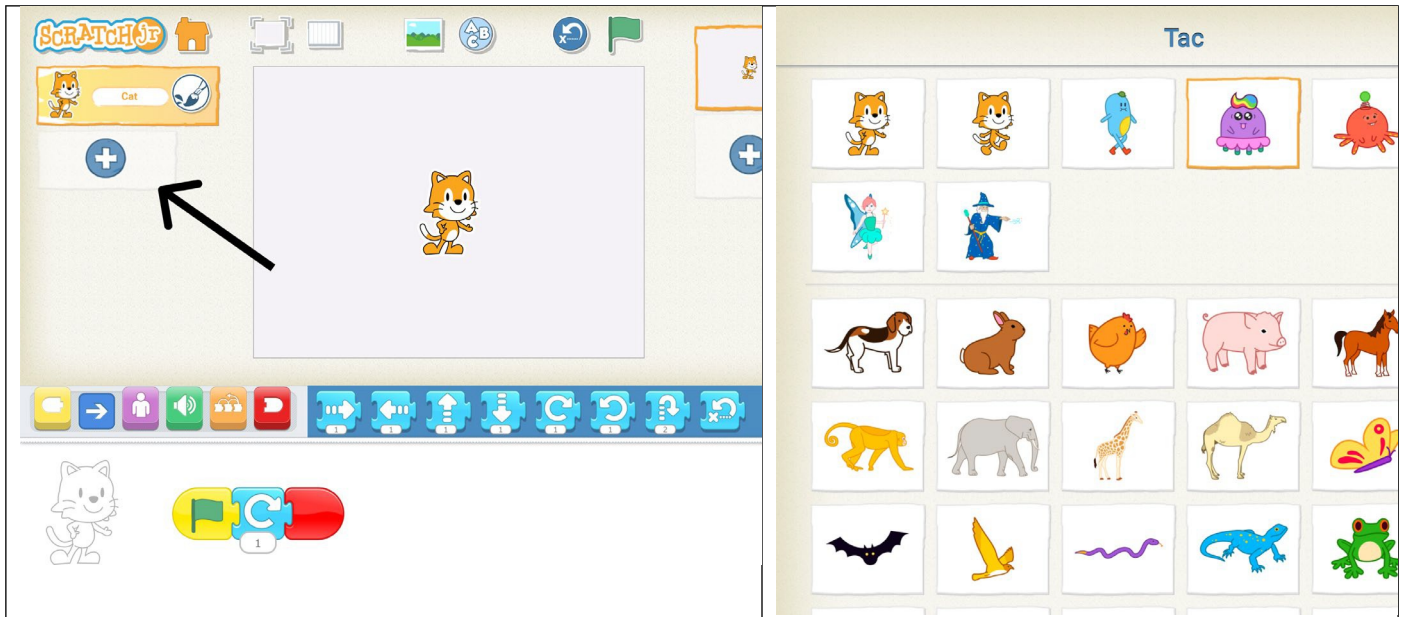
**Programming Area** is where you make the programs for each character. Each block's function is indicated by color and symbol, which is why ScratchJr is so great for younger grandchildren — no reading requirement!

**Programming Blocks Menu** lets you pick which selection of blocks to view. In this screen, the blue "motion" blocks are selected.

**Blocks Palette** is where the current selection of blocks will be displayed. In this screen, the blue motion blocks are being shown in the Blocks Palette.

## How to add a new character

ScratchJr can have many characters programmed and interacting at once. To add a new character, click the Plus sign on the left-hand side of the screen. This will let you take your pick of many different characters. To finalize your choice and return to the programming screen, just click the check mark in the top right corner of the character gallery.



## How to add a new page

Pages are different scenes that can hold different characters and programs. You can create up to four pages in a ScratchJr project.

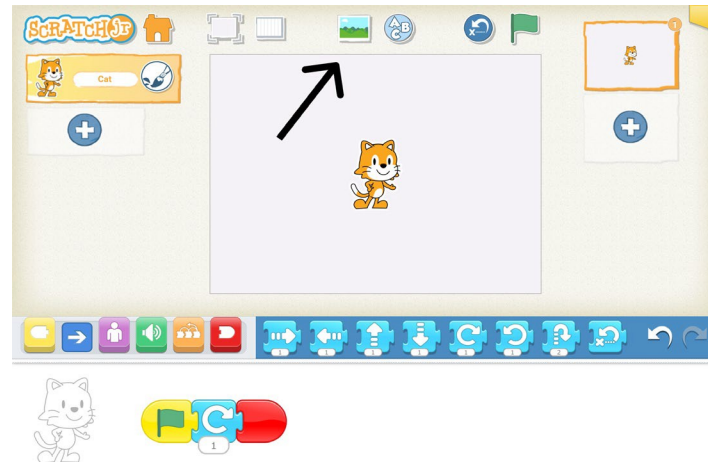
Pages can be connected with the Go to Page end block. This block is in the red end block palette, and only shows up when there are multiple pages (that's a tip!). When a program on the first page ends with a Go to Page block, the page will flip, and the programs of the second page will begin.



## How to change the background

Customize your scene even more by adding a background. To add a background, click the landscape image at the top of the screen. This will take you to the gallery of backgrounds.

You and your grandchild can choose from a variety of backgrounds or make your own.



## How to build a program

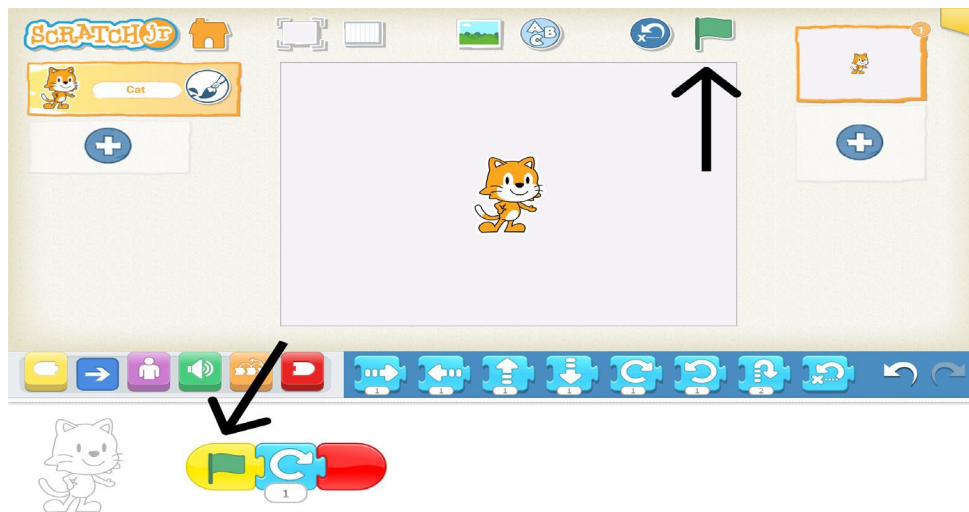
All programs are read left to right and must begin with yellow blocks and end with red blocks. Between the start and end, you can put almost any combination of other blocks.

- Start by selecting which type of block you want to use yellow Start blocks, blue Motion blocks, purple Looks blocks, green Sound blocks, orange Control blocks, or red End blocks.
- Click on that color to see the full selection.

- Tap the block you want to use and drag it down to the programming area. (*Tip:* If you can't figure out what a block does by the color and picture, tap and hold on a block to see the written label.)
- Drag it next to any other blocks you want in your program until they snap together.
- Play the program!

## How to play the program

To play a program, press the green flag at the top of the screen. You can also start the program by clicking on the program itself. *Note:* this only applies when the green flag Start block is being used. There are more advanced Start blocks that you can incorporate as well. To learn more about those, check out the [ScratchJr blocks guide](#).



## How to Get ScratchJr

### What devices can get ScratchJr?

ScratchJr is a free app.

- The [iPad version](#) requires iPad 2 or later (includes all iPad minis) running iOS 8.0 or later.
- The current [Android version](#) will work on tablets, 7-inch or larger, that are running Android 5.0 or greater.
- Any Chromebook that has the capability of installing apps from the Google Play store can install the [Android version](#) of ScratchJr.

### Where can you download ScratchJr?

If you are using an iPad, you can download [ScratchJr from the App Store](#).

If you are using an Android Tablet or Chromebook, you can download [ScratchJr from the Google Play Store](#).

## How do you download ScratchJr?

### Apple Devices

1. Go to Apple store



3. Click Install.

### Android Devices and Chromebooks

1. Go to Apple store



3. Click Install.

## More Information

- ScratchJr Blocks Guide: <http://scratchjr.org/learn/blocks>
- ScratchJr Interface Guide: <http://scratchjr.org/learn/interface>
- Coding as Another Language Curriculum: [sites.tufts.edu/codingasanotherlanguage](https://sites.tufts.edu/codingasanotherlanguage)
- ScratchJr Connect (curated database of ScratchJr activities and project ideas): <https://scratchjrconnect.tufts.edu/>

*Jessica Blake West has been with the DevTech Research Group since July 2020. Her work is primarily focused on ScratchJr app development, curriculum development, coordinating research studies, and community outreach. She works directly with students, teachers, and parents to help design fun and creative learning experiences for young children. In addition to working at DevTech, Jessica is also pursuing a degree in Human Factors Engineering at Tufts University, with a focus on Educational Technology. She received her B.S. in Cognitive Neuroscience at Brown University.*



[www.jewishgrandparentsnetwork.org](http://www.jewishgrandparentsnetwork.org)

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