

ScratchJr Coding Teacher Guide

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LESSON 9

Knock-Knock Joke - How to Use Camera and Mic

In this lesson, students learn to personalize their code with the camera and microphone. It also reinforces previous lessons about sending and receiving messages.

After watching the video, if students are having trouble, play the video for them again, or guide them through the following steps.



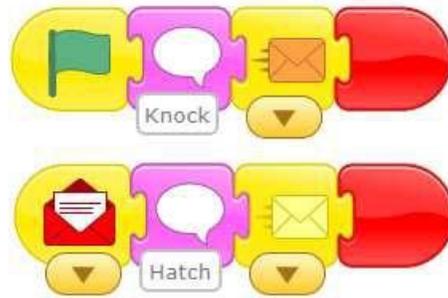
During this lesson, students will be able to:

1. Create a new project, and instead of adding a background, choose to edit the background. Click on the camera and take a picture for the background.
2. Click + to add a new sprite and select a sprite that is missing a face. Edit the sprite and take a picture of someone's face. Repeat to add a second sprite.
3. Edit the sprites to change the color of their clothes.
4. Add the blocks to one sprite to make them say something when the green flag is clicked and then send a colored message.
5. Add the blocks to the second sprite to make them wait for the colored message and then say something back.

Optional:

- Add the blocks to both sprites for a full knock-knock joke
- Use the green blocks to record your own words and use those instead of or in addition to the written messages.

Their code may look something like this:



LESSON 10

Changing Scenes in ScratchJr

In this lesson, students learn to change scenes.

After watching the video, if students are having trouble, play the video for them again, or guide them through the following steps.

During this lesson, students will be able to:

1. Create a new project and delete the default character.
2. Look through the various background pictures and think of a story that could use at least two pictures. Add at least two of these backgrounds to be scenes in the project.
3. Notice the red blocks now contain the option to go to the scenes that you added.
4. Add at least one sprite to your project. Add block code to the sprite that makes it move. At the end of the code or when the sprite is touched, add the block to go to another scene.
5. Drag the sprite to the second scene and modify the code to be what they should do in that scene

Optional:

- Create sprites and scenes using the paint editor to recreate a popular story.
- Add a start scene with a start button as a sprite. Go to scene 2 when the start button is pressed.
- Add words onto the scene by clicking on the letters at the top.

Each student's code will look very different, but they should all contain something that makes the project go to a second scene somehow.



LESSON 11 Hide & Seek Game

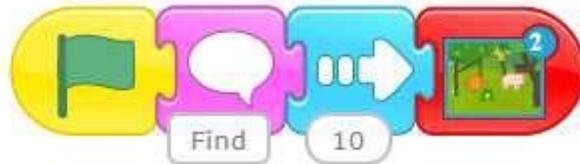
This lesson reinforces sequencing coding blocks, changing scenes, and making characters appear and speak.

After watching the video, if students are having trouble, play the video for them again, or guide them through the following steps.

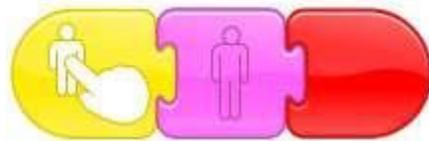


During this lesson, students will be able to:

1. Create a new project and delete the default character.
2. Add at least two scenes. They could be related such as a classroom and a library.
3. Add a sprite to the first scene. Add the block code to make it say, “Find me” and then move all the way across the scene when the green flag is clicked. Add the red block to change to scene 2 at the end.



4. Drag the character sprite to the second scene, and delete all of its code. Resize to be smaller if necessary.
5. Add at least two sprites to scene two for the character sprite to hide behind. Add the code to these sprites to be invisible when tapped. (Create for one sprite and drag to the others to copy.)



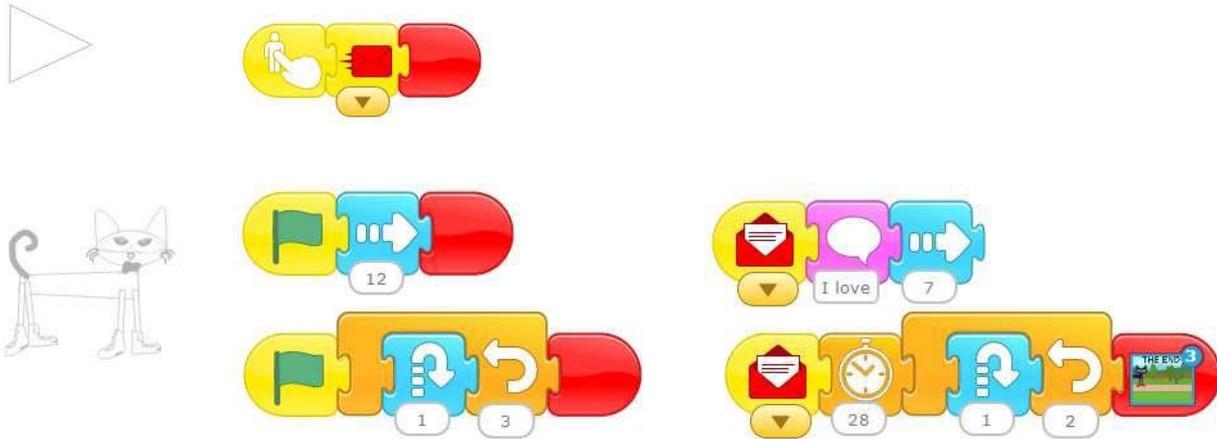
6. Add the code to the character sprite to say, "You found me!" when it is clicked on.



Optional:

- Add a sprite, such as an orange or green triangle (play button) to move from one scene in the story to another.
- Instead of changing scenes, use multiple sprites on the same scene and make them invisible and visible to make it look like they change the way they look.

Their code will be unique to their story, but here is my example:

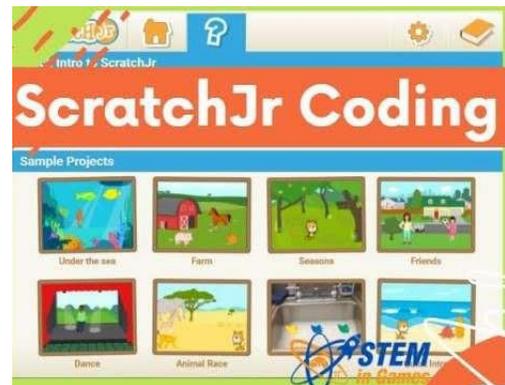


LESSON 13

How to use Sample Projects

In this lesson, students explore the built in sample projects and guides that come with ScratchJr.

After watching the video, guide the students through the following steps.

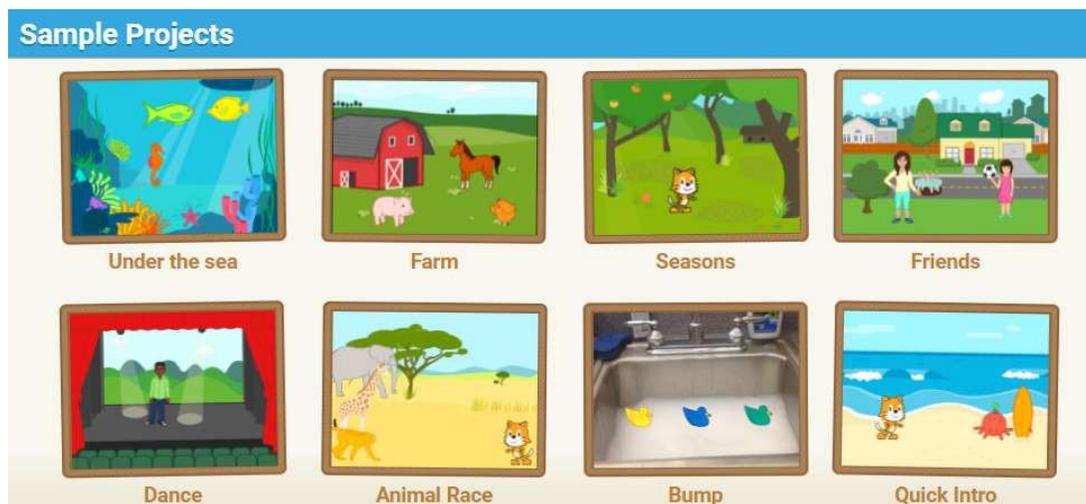


During this lesson, students will be able to:

1. Click on the book at the top right and open the Interface Guide.
Click on each number to see what each item does.
2. Open the Paint Editor Guide and see what all those icons do.
3. Open the Blocks Guide and make sure you know what all the blocks do.
4. Click on the question mark at the top. This will take you to the Sample Projects.
5. Open the first sample project. View the code and see what it does.
Change the code for at least one sprite and run the code again.
6. Repeat for the other sample projects.

Optional:

- After learning something new in the Interface Guide, Paint Editor Guide, or Blocks Guide, open a project you have done recently and try using the new button or block



LESSON 14

How to Move Characters

In this lesson, students learn to make characters move by running multiple scripts at one time.

After watching the video, if students are having trouble, play the video for them again, or guide them through the following steps.



During this lesson, students will be able to:

1. Create a new project and delete the default sprite.
2. Add a scene and a character that you want to move.
3. Use two scripts, running at the same time to create more realistic movements such as moving to the right and jumping at the same time like this:



or moving to the right and rolling at the same time as this:



Moving to another scene is optional in this lesson.

LESSON 15

How to make a Jumping Game

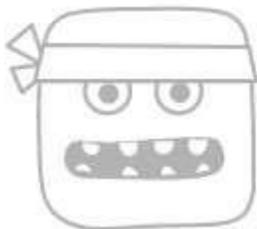
This lesson creates a jumping game that reinforces many of the techniques that have been used in previous lessons like looping and running multiple scripts at once.

After watching the video, if students are having trouble, play the video for them again, or guide them through the following steps.

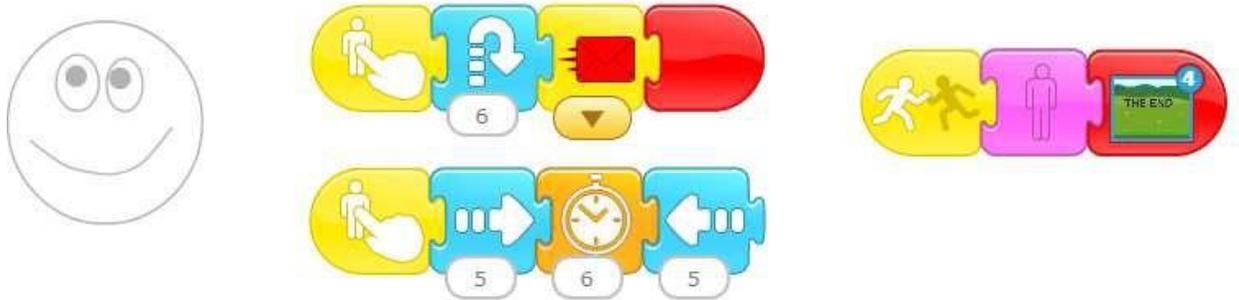


During this lesson, students will be able to:

1. Create a new project and delete the default sprite.
2. Add a background scene.
3. Add an enemy character. Any spirit will do. It does not need to be drawn with the paint editor as in the example. Add the code to move it from right to left towards the main character. In the example, the enemy also spins while moving left.



4. Add a sprite for the main character. Add the code that will make the main character jump up and to the right at the same time, to avoid the object coming at him. This code should run when we click him. Play around with the height and how much time before moving back to the original position
5. Also add the code to the main character that will end the game if it is touched by another character, the enemy



Optional:

- Add a scene to change to when the game is lost that displays, "THE END"
- Add the sprites and code necessary to keep score

