

LESSON 4

PLANNING AN ANIMATION

GRADES 3 & 4



Lesson created by the GMU-ODU CSforAll Team. For more information about this lesson and our CSforAll initiative, contact Dr. Amy Hutchison at ahutchison1@va.edu

SUMMARY AND STANDARDS

Summary:

In this lesson, students will plan and code an animation in Scratch with the help of the CoCo graphic organizer. They will be introduced to the concept of debugging and new sound blocks in Scratch, as well as discuss what makes for a good animation of their writing.

ELA Standards

The student will write in a variety of forms to include narrative, descriptive, opinion, and expository.

- a) Engage in writing as a process.
- b) Identify audience and purpose.
- c) Use a variety of prewriting strategies.
- d) Use organizational strategies to structure writing according to type.
- e) Use transition words to vary sentence structure.

CS Standards:

-The student will construct sets of step-by-step instructions (algorithms) both independently and collaboratively using sequencing and using loops.

-The student will construct programs to accomplish a task as a means of creative expression using a block or text based programming language, both independently and collaboratively using sequencing and using loops.

-The student will analyze, correct, and improve (debug) an algorithm that includes sequencing, events, loops and variables.

Today we will learn about debugging, a key process you will use in both computer science and writing.

MATERIALS AND RESOURCES NEEDED FOR THIS LESSON:

- Chromebook/Laptop
- Internet Access
- [Scratch for CS First](#) or Scratch online
- Teacher slide deck
- [Student slides](#)
- [CoCo Link](#)
- Written recipe from last lesson
- Blank paper for brainstorming

Reminder:

In this lesson, every student should be **assigned a story in CoCo** using **Level 4**.

The story should be titled **“Lesson 4 Story.”**

Each student should save their work using this naming strategy: **“Student Name + Lesson # + Descriptor”**, for example, **“Johnny Lesson 4 Story”**



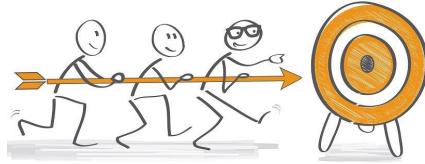
CO CO
COMPOSE & CODE

DEPICT-CS



You will need....[read slide]

LESSON OBJECTIVES: I CAN...



- Review familiar Scratch blocks with a scavenger hunt
- Identify new Scratch sound blocks: play sound, record/upload a sound, change the pitch effect of a sound, stop all sounds
- Practice using Scratch sound blocks
- Define code, bugs, and debugging
- Understand how to debug an algorithm
- Discuss and understand the features of a good animation
- Finish animating my recipe in Scratch
- Evaluate my work
- Share my animation with a partner

Optional: Introduce lesson, learning goals, and resources (Slides # 2-4)

WARM UP: SCRATCH SCAVENGER HUNT

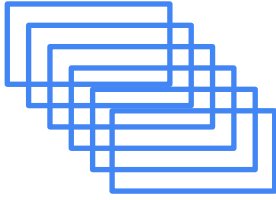
Let's warm-up with a scavenger hunt in Scratch to remember some things in scratch. You will use your student slide deck to work on this while you are looking for things in scratch.

WARM UP

1. Open your STUDENT slide deck and navigate to the last slide.
2. Visit scratch.mit.edu or CS First to figure out how to do each task.
3. Drag the blue box to the correct item.

PAUSE HERE (10 MINUTES)

Ok, so you will [read slide]
Pause here while you work



Supercoders, move the blue boxes to the right answer.

Which one of these is the **start** block?



Which one of these is the **wait** block?



Is the **think** block purple?

True

False

Which one of these is the **choose a sprite** block?



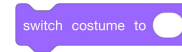
Is the **move** block colored yellow, purple, or blue?

yellow

purple

blue

Which block allows you to switch to a new **costume**?






In a moment, I will share the slide deck with you and you will see a screen like this. You will drag the blue box to the correct answer. You may also want to navigate to Scratch on your device if you can't remember how to do some of these things in Scratch. Once you are done, we will go over the answers together!




Acknowledgments: Adapted from [CS+Fables](#)

Answer Key:

Which one of these is the **start** block?



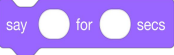
Which one of these is the **wait** block?

Is the **think** block purple?

True False



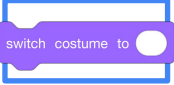
Which one of these is the **choose a sprite** block?

Is the **move** block colored yellow, purple, or blue?

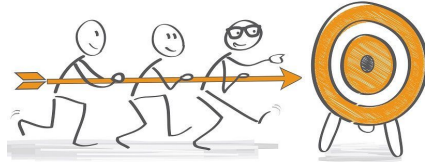
yellow purple blue

Which block allows you to switch to a new **costume**?

Check to see if your answers were correct.

LESSON OBJECTIVES: I CAN...

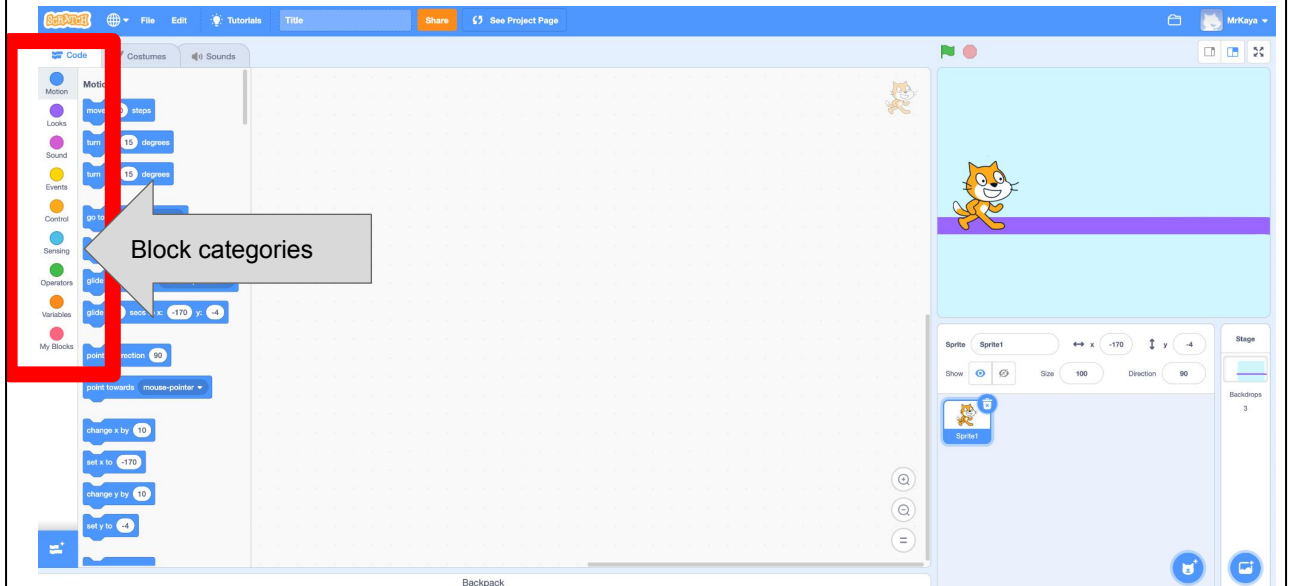


- ✓ Review familiar Scratch blocks with a scavenger hunt
- ❑ Identify new Scratch sound blocks: play sound, record/upload a sound, change the pitch effect of a sound, stop all sounds
- ❑ Practice using Scratch sound blocks
- ❑ Define code, bugs, and debugging
- ❑ Understand how to debug an algorithm
- ❑ Discuss and understand the features of a good animation
- ❑ Finish animating my recipe in Scratch
- ❑ Evaluate my work
- ❑ Share my animation with a partner

Optional: Introduce lesson, learning goals, and resources (Slides # 2-4)

INTRODUCING SCRATCH SOUND BLOCKS

INTRODUCING SCRATCH SOUND BLOCKS



Remember that on the far lefthand side of our page, we see a color palette. Each color corresponds to a different type of block. Today, we'll focus on sound blocks, which are PINK.

SOUND BLOCKS

Do I need to play a sound?

Do I need to choose a sound?

Do I need to change the pitch effect of the sound?

Do I need to stop all sounds?

For today, I am going to show you how to use two types of blocks you will see in level 4. You will see these questions in Coco{Read questions}. These are all related to the pink sound blocks in scratch. Let me show you how to use these blocks!

SOUND BLOCKS:

Do I need to play a sound?

play sound Meow until done

Do I need to choose a sound?



Do I need to change the pitch effect of the sound?

change pitch effect by 10

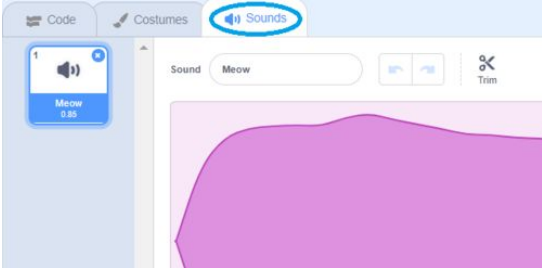
Do I need to stop all sounds?

stop all sounds

For these questions, you will use these blocks...read slide.

SOUND BLOCKS: Do I need to choose, upload, or record a sound?

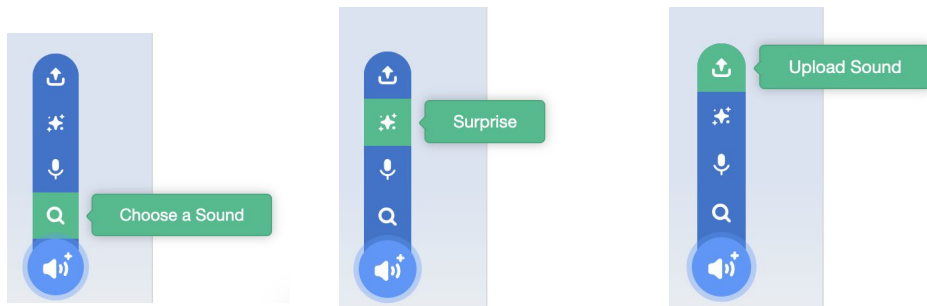
How to choose a sound:

1.  A screenshot of the Scratch interface showing the 'Sounds' tab selected. The 'Meow' sound is highlighted, and a volume waveform is visible below it.
2.  A blue circular icon containing a white speaker symbol and a plus sign, representing the 'Add Sound' button.
3.  A vertical menu from the Scratch Sounds interface. It includes options for 'Upload', 'Record', and 'Choose a Sound'. The 'Choose a Sound' option is highlighted with a green button.

But for this question, you will need to choose **WHAT** sound you are using. You can choose one from Scratch or upload or record your own sound!

In Scratch you will click on the Sounds tab at the top, then click the blue speaker with a plus sign, this will allow you to choose a sound.

SOUND BLOCKS: Do I need to choose, upload, or record a sound?



Then you can decide how you want to choose your sound. Choose from the options in Scratch, record your own, let scratch choose, randomly, or you can upload a sound. Let me show you!

YOUR TURN: PRACTICE USING SCRATCH SOUND BLOCKS

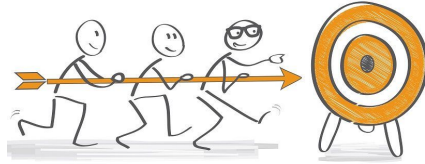
Steps:

1. Choose a new sprite (any animal that is not a cat!)
2. Choose a sound for your sprite
3. Use a purple look block to make your sprite to say at least one line of your written instructions

Now it's your turn! (Read slide)

PAUSE TO WORK IN SCRATCH

LESSON OBJECTIVES: I CAN...



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Check off objectives as lesson proceeds.

GUIDED INSTRUCTION

CODE:

**THE LANGUAGE THAT COMPUTER SCIENTISTS
CREATE AND USE TO TELL A COMPUTER WHAT TO DO.**

Remember: code is the language that computer scientists create and use to tell a computer what to do. Code is how we can give instructions to a computer.

BUT WHAT IF....

Ok, but what happens if we miss a step or make a mistake in writing our algorithm? Well, the computer or the human who is reading the instructions will not be able to accomplish the task! These mistakes are called....

Bugs: An error in a code that prevents the program from running as expected.

"Bugs...but not the creepy, crawly critter that you might think of at first when you hear the word "bug." "Bugs" in computer science are errors in a code..." A bug is an error or mistake in your code that prevents the program from running as expected. It is like when you write something incorrect in your instructions and someone else can't follow them because they are confused. When this happens in your writing you have to fix your mistake.

Debugging: looking for and fixing the errors in your code

When you need to fix your error in your code we call that debugging. This means you are looking for your mistake and then fixing it. Everyone makes mistakes, even professionals!

TO DEBUG AN ALGORITHM, WE...

- ❑ Describe your problem.
- ❑ Hunt for bugs (what is it in your code causing the problem).
- ❑ Try out some solutions and test.
- ❑ Remember what you learned from the bug.



Whenever we realize that we have a bug, here are the steps for debugging. We [read slide]. Debugging happens all the time while we are coding! Let's practice this process with some debugging challenges.

Debugging Recipe from Code.org:

<https://code.org/curriculum/docs/k-5/DebuggingTeacher.pdf>

Let's try this out!

DEBUGGING CHALLENGE 1: STUDENTS OPEN THE STUDENT SLIDE DECK

To debug, download the .sb3 file from the following [link](https://bit.ly/3RcpLyo): <https://bit.ly/3RcpLyo>

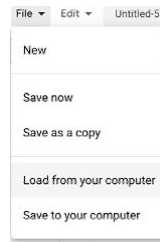
Next, go to the following CS First Scratch [Link](#) and sign in!: <https://bit.ly/3PexYzB>

Click Sign in and Choose “I’m a student”

Click “File” menu and Choose “Load from your computer”

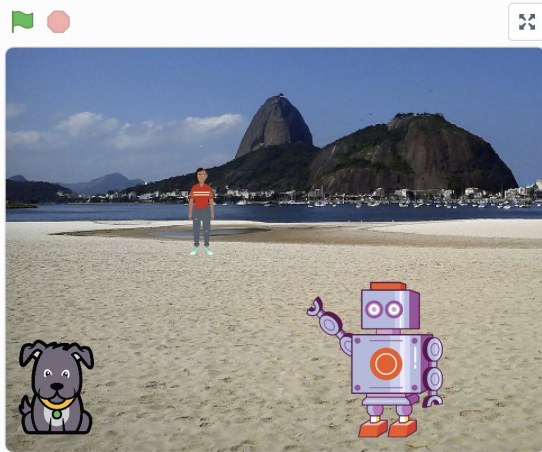
Now you can start debugging!!! Have fun!!!

Challenge: In this project, when the green flag is clicked, firstly Coco should say “Hello, World! I’m Coco.” in a speech bubble and next Pascal should say “Hello, World! I’m Pascal.” in a speech bubble. However, both Coco and Pascal’s speech bubbles appear at the same time. How can we debug this?

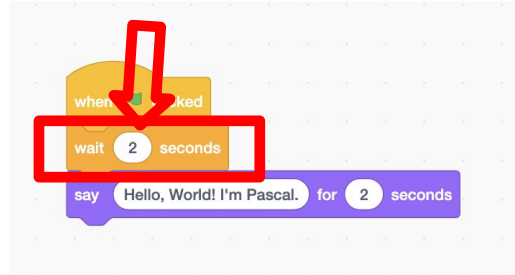


DEBUGGING CHALLENGE 1 ANSWER KEY

After you have tried to debug this challenge, check out this project for a sample solution using <https://bit.ly/3Lm6Ey7>
You will need to download the file and upload it to CS First to view it.



Possible Solution:



DEBUGGING CHALLENGE 2:

To debug, download the .sb3 file from the following [link](https://bit.ly/460mk1Y): <https://bit.ly/460mk1Y>

Next, go to the following CS First Scratch [Link](https://bit.ly/3PexYzB): <https://bit.ly/3PexYzB>

Click Sign in and Choose "I'm a student"

Click "File" menu and Choose "Load from your computer"

Now you can start debugging!!! Have fun!!!

Challenge: In this project, when the green flag is clicked, Coco firstly should say "Woof! Woof!" in a speech bubble and next as a sound. But the sound happens before the speech bubble- and Coco only makes one 'Woof!' sound! How can we debug this?

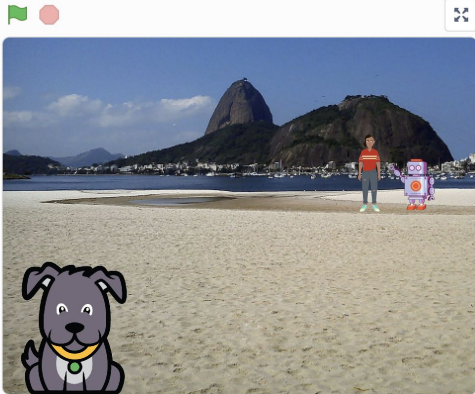


Debug .sb3 file dropbox link:

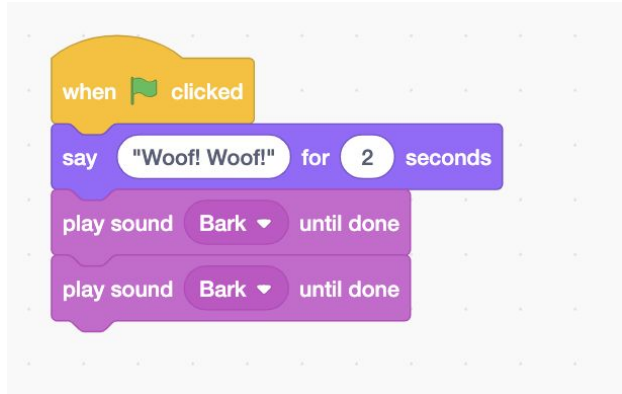
<https://www.dropbox.com/scl/fi/9064hqcmicagr79mr1kgs/Coco-Debugging-Woof.sb3?rlkey=ebzjz1lfxknrxv28zvi0tg6a&dl=0>

DEBUGGING CHALLENGE 2 ANSWER KEY

After you have tried to debug this challenge, check out this project for a sample solution using <https://bit.ly/3RriBGq>



Possible Solution:



Dropbox link:

<https://www.dropbox.com/scl/fi/7ho9xv03bye892n82ow4u/Coco-Debugging-Woof-Solution.sb3?rlkey=owgk022jej1yo2o5y7dzxpf8j&dl=0>

DEBUGGING CHALLENGE 3:

To debug, download the .sb3 file from the following [link](https://bit.ly/3RfWliX): <https://bit.ly/3RfWliX>

Next, go to the following CS First Scratch [Link](https://bit.ly/3PexYzB): <https://bit.ly/3PexYzB>

Click Sign in and Choose "I'm a student"

Click "File" menu and Choose "Load from your computer"

Now you can start debugging!!! Have fun!!!

Challenge: When the green flag is clicked, both Coco and Pascal should respond to Pearl and say "Hi, Pearl!". But only Pascal responds and says "Hi, Pearl!". How do we fix the program?



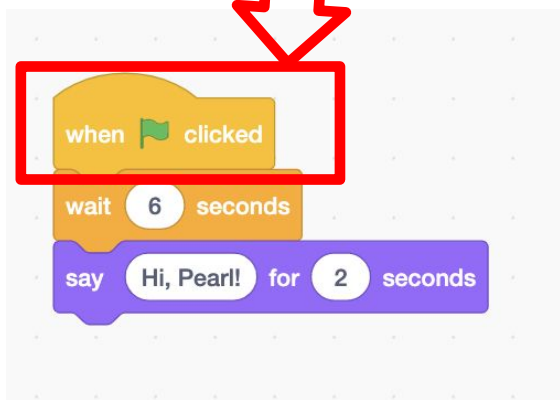
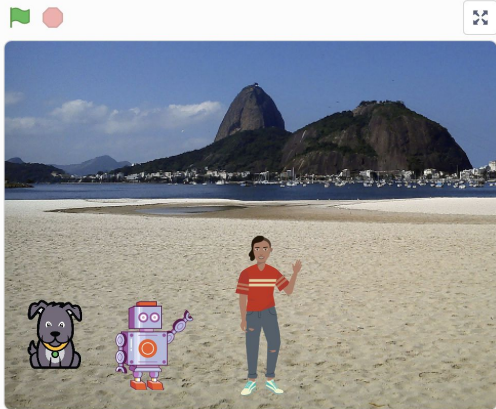
Dropbox link:

<https://www.dropbox.com/scl/fi/8kv373sx0d6g9xm827srm/Coco-Pascal-Pearl-Debugging-Hi.sb3?rlkey=03secq4nslcq2uxs0jzy7er4&dl=0>

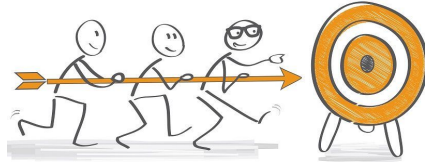
DEBUGGING CHALLENGE 3 ANSWER KEY

After you have tried to debug this challenge, check out this project for a sample solution using <https://bit.ly/3RmSINw>

Possible Solution:



LESSON OBJECTIVES: I CAN...



- ✓ Review familiar Scratch blocks with a scavenger hunt
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Check off objectives as lesson proceeds.

TODAY'S OBJECTIVE

Plan and code an animation to illustrate our writing using CoCo and Scratch.

Discuss: what makes a good animation?

We've covered how to write and code algorithms in CoCo and Scratch; and we've discussed how to fix our mistakes. Before we jump into animating, let's discuss as a class: "what makes a good animation?"

WHEN YOU CODE IN SCRATCH....

- ❏ **INCLUDE A TOPIC SENTENCE**
- ❏ **MATCH YOUR ANIMATION TO YOUR WRITING**
- ❏ **BE CONSISTENT**
- ❏ **MATCH YOUR VISUALS TO YOUR TEXT**

I've got a few tips to share with you as you're coding in Scratch.

You want to a) match your animation to your writing, b) be consistent, and c) make sure all the visuals in the frame make sense given what you have written in your text.

“ONCE UPON A TIME THERE LIVED A PRINCESS...”



For example, if I was writing a story about “Once upon a time there lived a princess....” which one of these sprites would make more sense?

“ONCE UPON A TIME THERE LIVED A PRINCESS...”



For example, if I was writing a story about “Once upon a time there lived a princess....” which one of these sprites would make more sense? Probably this one. Although, if our princess played baseball later in the story, you could switch it up!

“ONCE UPON A TIME THERE LIVED A PRINCESS IN A CASTLE.”

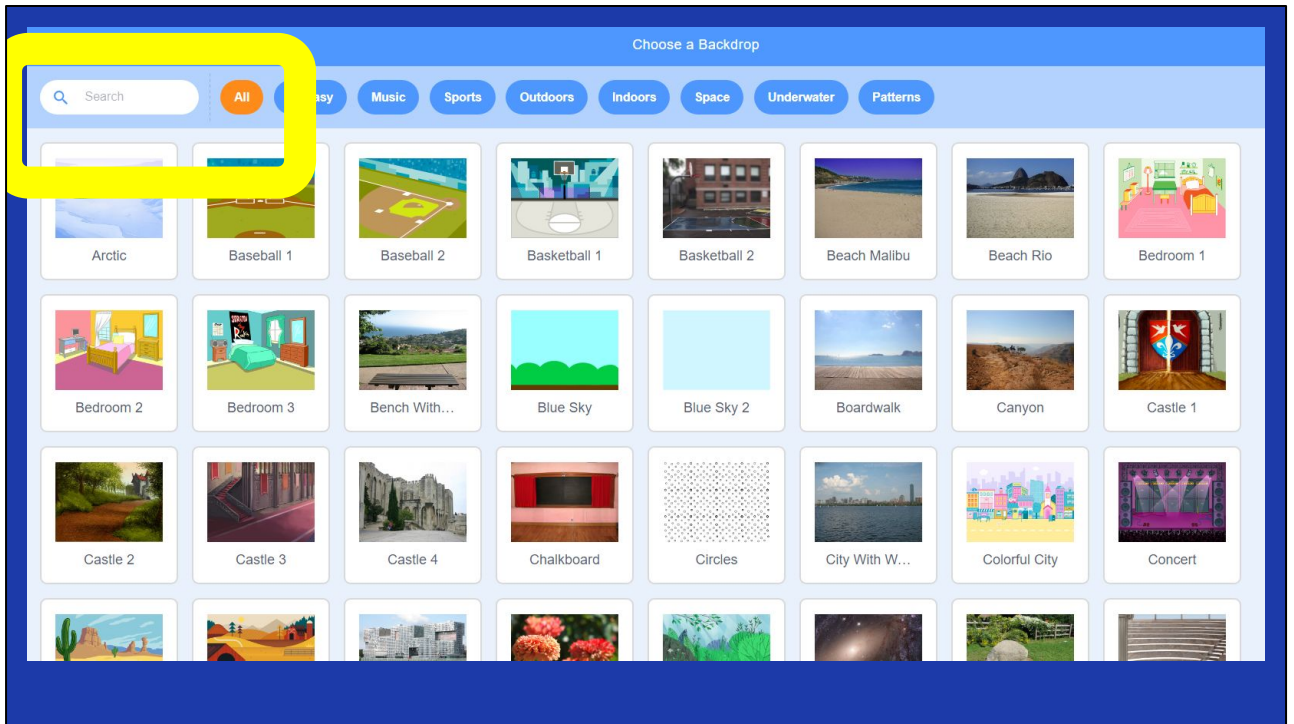


Now, if I was writing a story about a princess who lived in a castle, this backdrop would make more sense.

**“ONCE UPON A TIME THERE LIVED A PRINCESS WHO PLAYED
BASEBALL.”**

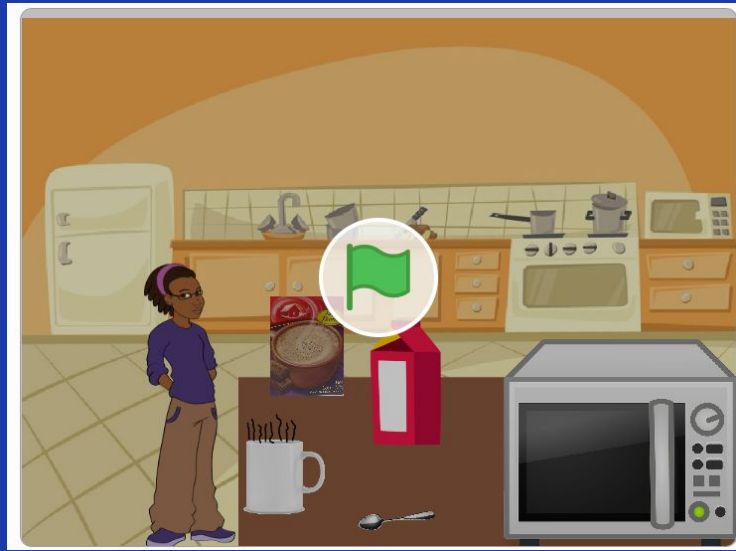


But if I wrote about a princess who played baseball, this one could also work!



Here's another Scratch tip: when looking for sprites and backdrops, you can enter words into the "search" bar and see if any of the results match what you're looking for.

✓ LIKE
THIS

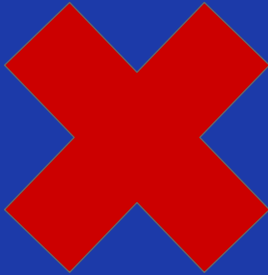


<https://www.dropbox.com/s/nh93dmdkphd4n0z/Screen%20Recording%202023-09-19%20at%201.45.13%20AM.mov?dl=0>

Let's look at this example of a scratch project that is consistent, matches its text, and whose visuals make sense. This is using the "how to make hot chocolate" recipe we've seen before.

<https://www.dropbox.com/s/nh93dmdkphd4n0z/Screen%20Recording%202023-09-19%20at%201.45.13%20AM.mov?dl=0>

NOT LIKE THIS

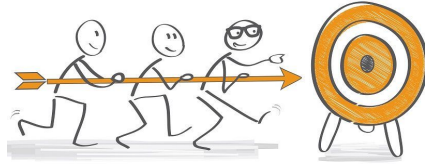


[HTTPS://WWW.DROPBOX.COM/S/07AAPHBGLZVSWKR/SCREEN%20RECORDING%202023-09-19%20at%201.52.23%20AM.MOV?DL=0](https://www.dropbox.com/s/07AAPHBGLZVSWKR/SCREEN%20RECORDING%202023-09-19%20at%201.52.23%20AM.MOV?DL=0)

Now, let's look at the same video but where the visuals don't match the text. Hmm, what went wrong

here?<https://www.dropbox.com/s/o7aaphbglzvsokr/Screen%20Recording%202023-09-19%20at%201.52.23%20AM.mov?dl=0>

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Check off objectives as lesson proceeds.



**BRAINSTORM WITH A PARTNER: HOW WILL YOU
ANIMATE YOUR RECIPE IN SCRATCH?**

Turn and talk with a neighbor, discuss how you will animate your lemonade or tea recipes in Scratch. What visuals will you use? How will you select a backdrop? Why?

COCO CONTINUES TO HELP US!

Today, you will use Coco to help you code your instructional animation in Scratch!

1. Open a tab with Coco
2. Open a tab with Scratch
3. Use column 3 of Coco to find the blocks in Scratch we need for each step.
4. After you've found the blocks in Scratch, check off each row's self-monitoring before moving to the next step.



COCO
COMPOSE & CODE

DEPICT-CS

Don't worry, CoCo is here to support you. Let's open CoCo and Scratch to finish planning our animations. [read slide]

Step 3: Composing & Coding - Use the Graphic Organizer

Story: Recipe

My Ideas	What I Want to Do	Blocks & Icons I will need	Self-monitoring
1 First First, get all of your materials. You will need water and sugar.	<input type="checkbox"/> Do I need to add a start block? <input type="checkbox"/> Do I need to add a character or object? <input type="checkbox"/> Do I need to add or change a background? <input type="checkbox"/> Do I need to make my character talk?		<input type="checkbox"/> I used the start block. <input type="checkbox"/> I created a character sprite. <input type="checkbox"/> I added a background. <input type="checkbox"/> I made my character talk.
2 Then Then, squeeze the lemons into juice.	<input type="checkbox"/> Do I need to add or change a background? <input type="checkbox"/> Do I need to make my character talk? <input type="checkbox"/> Do I need to make my character think something? <input type="checkbox"/> Do I need to create a costume? <input type="checkbox"/> Do I need to switch a costume?		<input type="checkbox"/> I made my character talk. <input type="checkbox"/> I switched a costume.
3 Next Next, add water and sugar.	<input type="checkbox"/> Do I need to add or change a background? <input type="checkbox"/> Do I need to make my character talk? <input type="checkbox"/> Do I need to make my character think something? <input type="checkbox"/> Do I need to create a costume? <input type="checkbox"/> Do I need to switch a costume?		<input type="checkbox"/> I made my character talk. <input type="checkbox"/> I switched a costume.
4 Last Last, stir the ingredients together.	<input type="checkbox"/> Do I need to add or change a background? <input type="checkbox"/> Do I need to make my character talk? <input type="checkbox"/> Do I need to make my character think something? <input type="checkbox"/> Do I need to create a costume? <input type="checkbox"/> Do I need to switch a costume?		<input type="checkbox"/> I made my character talk. <input type="checkbox"/> I switched a costume.
5 Finally Great job!	<input type="checkbox"/> Do I need to create a costume? <input type="checkbox"/> Do I need to switch a costume? <input type="checkbox"/> Do I need to make my character think something?		<input type="checkbox"/> I created a costume. <input type="checkbox"/> I changed a costume. <input type="checkbox"/> I made my sprite think something.

LOG INTO COCO AND COMPLETE COLUMNS 2 & 3

Pause while students work in CoCo and Scratch.

VIDEOMODEL

[How to Choose Animation Blocks in Scratch Tutorial](#)

Note to teachers: in the video, the first row is already preselected for students.

Since your students are working in level 4, they will need to decide what they want to animate and choose the corresponding Scratch blocks.

The screenshot shows a 'Story: Level 2 Model' interface with a table for planning animation blocks. The table has four columns: 'My Ideas', 'What I Want to Do', 'Blocks & Icons I will need', and 'Self-monitoring'. The first row is preselected. The 'My Ideas' column contains steps like 'First, get all your materials...', 'Then you will need to squeeze your lemons into juice.', 'Next, add sugar and water to your lemon juice.', 'Last, mix your ingredients.', and 'Finally'. The 'What I Want to Do' column lists tasks such as 'Do I need to add a start block?', 'Do I need to add a character or object?', 'Do I need to add or change a background?', 'Do I need to make my character talk?', 'Do I need to add or change a background?', 'Do I need to make my character talk?', 'Do I need to make my character think something?', 'Do I need to create a costume?', 'Do I need to add or change a background?', 'Do I need to make my character talk?', 'Do I need to make my character think something?', 'Do I need to create a costume?', 'Do I need to add or change a background?', 'Do I need to make my character talk?', 'Do I need to make my character think something?', 'Do I need to create a costume?', 'Do I need to create a costume?', and 'Do I need to switch a costume?'. The 'Blocks & Icons I will need' column shows Scratch icons for 'Say', 'Think', 'Costume', and 'Switch Costume'. The 'Self-monitoring' column has checkboxes for 'I found the start block.', 'I created a character (sprite).', 'I added a background.', 'I made my character talk.', 'Repeated words: []', 'Should I use a different word?', 'I created a costume.', and 'I changed a costume.'.

Optional video on how to choose animation blocks

Note to teachers: in the video, the first row is already preselected for students.

Since your students are working in level 4, they will need to decide what they want to animate and choose the corresponding Scratch blocks.

Step 3: Composing & Coding - Use the Graphic Organizer

Story: Recipe

My Idea	What I Want to Do	Blocks & Icons I will need	Self-monitoring
<p>1 First First, get all of your materials. You will need lemons, water, and sugar.</p>	<p>Do I need to add a start block? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Do I need to add a character or object? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Do I need to add or change a background? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Do I need to make my character talk? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p>	<p>Scratch blocks: say, say for 2 seconds, set costume to costume</p>	<p><input type="checkbox"/> I used the start block.</p> <p><input type="checkbox"/> I created a character or object.</p> <p><input type="checkbox"/> I added a background.</p> <p><input type="checkbox"/> I made my character talk.</p>
<p>2 Then Then, squeeze the lemons into juice.</p>	<p>Do I need to add or change a background? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Do I need to make my character talk? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Do I need to make my character think something? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Do I need to create a costume? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Do I need to switch a costume? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p>	<p>Scratch blocks: say, say for 2 seconds, set costume to costume</p>	<p><input type="checkbox"/> I made my character talk.</p> <p><input type="checkbox"/> I switched a costume.</p>
<p>3 Next Next, add water and sugar.</p>	<p>Do I need to add or change a background? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Do I need to make my character talk? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Do I need to make my character think something? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Do I need to create a costume? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Do I need to switch a costume? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p>	<p>Scratch blocks: say, say for 2 seconds, set costume to costume</p>	<p><input type="checkbox"/> I made my character talk.</p> <p><input type="checkbox"/> I switched a costume.</p>
<p>4 Last Last, stir the ingredients together.</p>	<p>Do I need to add or change a background? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Do I need to make my character talk? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Do I need to make my character think something? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Do I need to create a costume? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Do I need to switch a costume? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p>	<p>Scratch blocks: say, say for 2 seconds, set costume to costume</p>	<p><input type="checkbox"/> I made my character talk.</p> <p><input type="checkbox"/> I switched a costume.</p>
<p>5 Finally Great job!</p>	<p>Do I need to create a costume? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Do I need to switch a costume? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p> <p>Do I need to make my character think something? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes</p>	<p>Scratch blocks: Costumes, set costume to costume, say, say for 2 seconds</p>	<p><input type="checkbox"/> I created a costume.</p> <p><input type="checkbox"/> I changed a costume.</p> <p><input type="checkbox"/> I made my sprite think something.</p>



**PAUSE HERE AND CODE IN SCRATCH,
CHECK YOUR SELF MONITORING**

Remember to check off your self-monitoring column as you work!

Note: to jump straight to toggling between Scratch and CoCo, skip to 2:35

VIDEO MODEL

[Video on how to add content from first row to CoCo to Scratch](#)

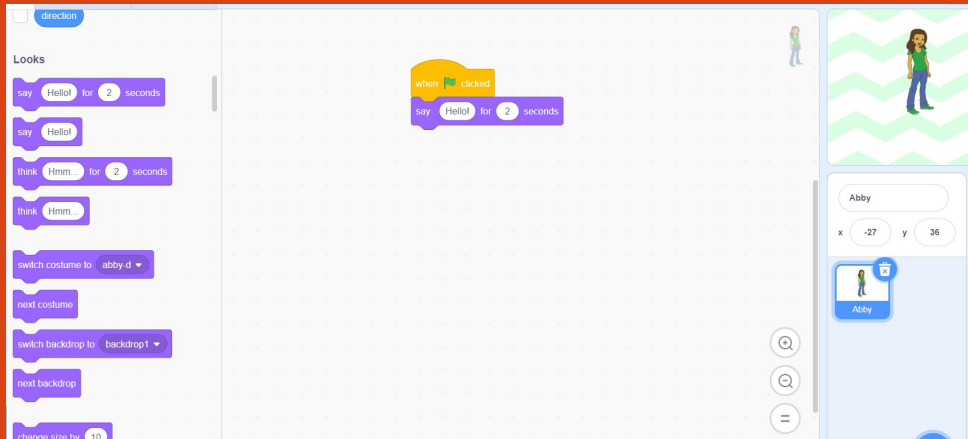
Story: Recipe			
My Ideas:	What I Want to Do:	Blocks & Icons I will need:	Self-monitoring:
<p>1. First: First, get all of your materials. You will need lemons, water, and sugar.</p>	<p>1. Do I need to add a start block? No <input type="radio"/> Yes <input checked="" type="radio"/></p> <p>2. Do I need to add a character or object? No <input type="radio"/> Yes <input checked="" type="radio"/></p> <p>3. Do I need to add or change a background? No <input type="radio"/> Yes <input checked="" type="radio"/></p> <p>4. Do I need to make my character talk? No <input type="radio"/> Yes <input checked="" type="radio"/></p>		<p><input type="checkbox"/> Found the start block.</p> <p><input type="checkbox"/> Created a character (sprite).</p> <p><input type="checkbox"/> Switched a background.</p> <p><input type="checkbox"/> Made my character talk.</p>
<p>2. Then: Then, separate the lemons into juices.</p>	<p>1. Do I need to add or change a background? No <input type="radio"/> Yes <input checked="" type="radio"/></p> <p>2. Do I need to make my character talk? No <input type="radio"/> Yes <input checked="" type="radio"/></p> <p>3. Do I need to make my character think something? No <input type="radio"/> Yes <input checked="" type="radio"/></p> <p>4. Do I need to create a costume? No <input type="radio"/> Yes <input checked="" type="radio"/></p> <p>5. Do I need to switch a costume? No <input type="radio"/> Yes <input checked="" type="radio"/></p>		<p><input type="checkbox"/> Made my character talk.</p> <p><input type="checkbox"/> Switched a costume.</p>
<p>3. Next: Next, add water and sugar.</p>	<p>1. Do I need to add or change a background? No <input type="radio"/> Yes <input checked="" type="radio"/></p> <p>2. Do I need to make my character talk? No <input type="radio"/> Yes <input checked="" type="radio"/></p> <p>3. Do I need to make my character think something? No <input type="radio"/> Yes <input checked="" type="radio"/></p> <p>4. Do I need to create a costume? No <input type="radio"/> Yes <input checked="" type="radio"/></p> <p>5. Do I need to switch a costume? No <input type="radio"/> Yes <input checked="" type="radio"/></p>		<p><input type="checkbox"/> Made my character talk.</p> <p><input type="checkbox"/> Switched a costume.</p>
<p>4. Last: Last, stir the ingredients together.</p>	<p>1. Do I need to add or change a background? No <input type="radio"/> Yes <input checked="" type="radio"/></p> <p>2. Do I need to make my character talk? No <input type="radio"/> Yes <input checked="" type="radio"/></p> <p>3. Do I need to make my character think something? No <input type="radio"/> Yes <input checked="" type="radio"/></p> <p>4. Do I need to create a costume? No <input type="radio"/> Yes <input checked="" type="radio"/></p> <p>5. Do I need to switch a costume? No <input type="radio"/> Yes <input checked="" type="radio"/></p>		<p><input type="checkbox"/> Made my character talk.</p> <p><input type="checkbox"/> Switched a costume.</p>
<p>5. Finally: Great job!</p>	<p>1. Do I need to create a costume? No <input type="radio"/> Yes <input checked="" type="radio"/></p> <p>2. Do I need to switch a costume? No <input type="radio"/> Yes <input checked="" type="radio"/></p> <p>3. Do I need to make my character think something? No <input type="radio"/> Yes <input checked="" type="radio"/></p>		<p><input type="checkbox"/> Created a costume.</p> <p><input type="checkbox"/> Changed a costume.</p> <p><input type="checkbox"/> Made my sprite think something.</p>

If you need it, here is a short video on how to move between CoCo and Scratch. Remember we will be toggling back and forth!

For students who benefit from additional scaffolding: Let's make sure we all get the hang of it by starting with adding the blocks from ONLY OUR FIRST ROW into Scratch. Pause and look at me when you're done.

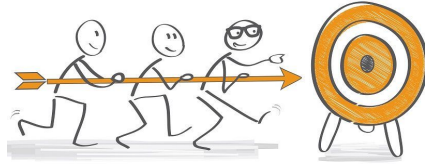
VIDEO MODEL

[Video on transferring the rest of your work from CoCo to Scratch and monitoring your progress](#)



Once you get the hang of it, transfer the content from the rest of your rows to Scratch.

LESSON OBJECTIVES: I CAN...



- ✓ Review familiar Scratch blocks with a scavenger hunt
- ✓ Identify new Scratch sound blocks: play sound, change the pitch effect of a sound, stop all sounds
- ✓ Practice using Scratch sound blocks
- ✓ Define code, bugs, and debugging
- ✓ Understand how to debug an algorithm
- ✓ Discuss and understand the features of a good animation
- ✓ Finish animating my recipe in Scratch
- Evaluate my work
- Share my animation with a partner

Check off objectives as lesson proceeds.

BUT WAIT!

Did you debug any errors?

Does your Scratch animation match what you planned and wrote in CoCo?

Either in pairs or by yourself, review and debug your code. Make sure the animation matches what you planned and wrote in CoCo! [read slide]

ASK YOURSELF:

- Does my animation in Scratch convey what I planned? Does it match my writing?
- Have I enhanced my writing in any way in Scratch?
- Is there anything distracting or unnecessary in my animation that I should remove?
- Is there anything in my animation that would make it harder for a viewer to understand my purpose?

Additional questions that can help you assess your animation include [read slide]













LAST STEP, SELF EVALUATION

And remember, self-evaluation is a crucial last step!

VIDEO MODEL

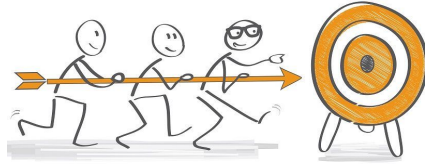
[Self-Evaluation Tutorial](#)

Step 4: Self-Evaluation - Rate How You Feel About It

How do I feel about my written story today?	 unhappy	 neutral	 happy
How do I feel about using CoCo today?	 unhappy	 neutral	 happy
How do I feel about coding today?	 unhappy	 neutral	 happy
How do I feel about my Scratch project today?	 unhappy	 neutral	 happy

Here's a tutorial on how to complete that portion of CoCo (if needed)

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Check off objectives as lesson proceeds.

SHARING YOUR .SB3 FILE FROM CS FIRST TO COCO

1. Create the file in CS First
2. In the Scratch editor, find the word "File" in the top-left corner.
3. Click on "File" menu and you'll see some choices pop down.
4. Choose "Save to your computer." This will download your Scratch project.
5. Look in your "Downloads" folder. That's where your saved project might be.
6. Go to the CoCo website and log in to your account. <https://wego.gmu.edu/scratchgo/login.php>
7. Click proceed on the correct story in CoCo.

Ready To Work on Your Story?	
first story	(Locked) View 2
second story	Proceed
Story 3	Proceed
8. Navigate to the section of CoCo where you can upload your project. (only sb3 type and 10Mb max).

Uploading your coding file (only sb3 type and 10Mb max):

Choose File No file chosen Save Uploaded file: [.a](#)
9. Click "Save". 

Model how students can share sb3 file from CS First to CoCo

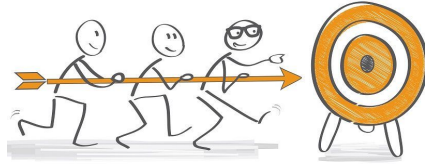
SHARE YOUR WORK:

- Find a partner and share your animation.
- Share what you learned and something you might want to try differently.

PAUSE AND SHARE

To wrap up, share your animation with a partner. Is there anything you learned or want to do differently next time?

LESSON OBJECTIVES: I CAN...



- ✓ Review familiar Scratch blocks with a scavenger hunt
- ✓ Identify new Scratch sound blocks: play sound, change the pitch effect of a sound, stop all sounds
- ✓ Practice using Scratch sound blocks
- ✓ Define code, bugs, and debugging
- ✓ Understand how to debug an algorithm
- ✓ Discuss and understand the features of a good animation
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Check off objectives as lesson proceeds.