

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 achutchison1@ua.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"**



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

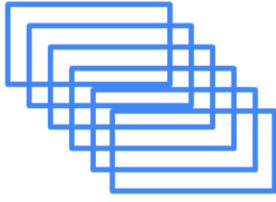
Let's warm-up with a scavenger hunt in Scratch to remember some things in scratch. You will use your student slide deck to work on this while you are looking for things in scratch.

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?



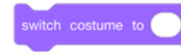
Is the **move** block colored yellow, purple, or blue?

yellow

purple

blue










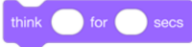

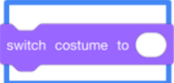
Which block allows you to switch to a new **costume**?



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!

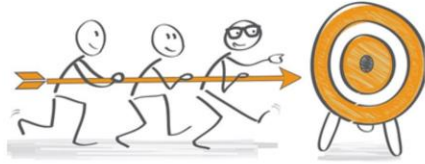
Acknowledgments: Adapted from [CS+Fables](#)

Answer Key:

Which one of these is the start block?			
Which one of these is the wait block?			
Is the think block purple?	<input checked="" type="checkbox"/> True	<input type="checkbox"/> False	
Which one of these is the choose a sprite block?			
Is the move block colored yellow, purple, or blue?	<input type="checkbox"/> yellow	<input type="checkbox"/> purple	<input checked="" type="checkbox"/> blue
Which block allows you to switch to a new costume ?			

Check to see if your answers were correct.

LESSON OBJECTIVES: I CAN...

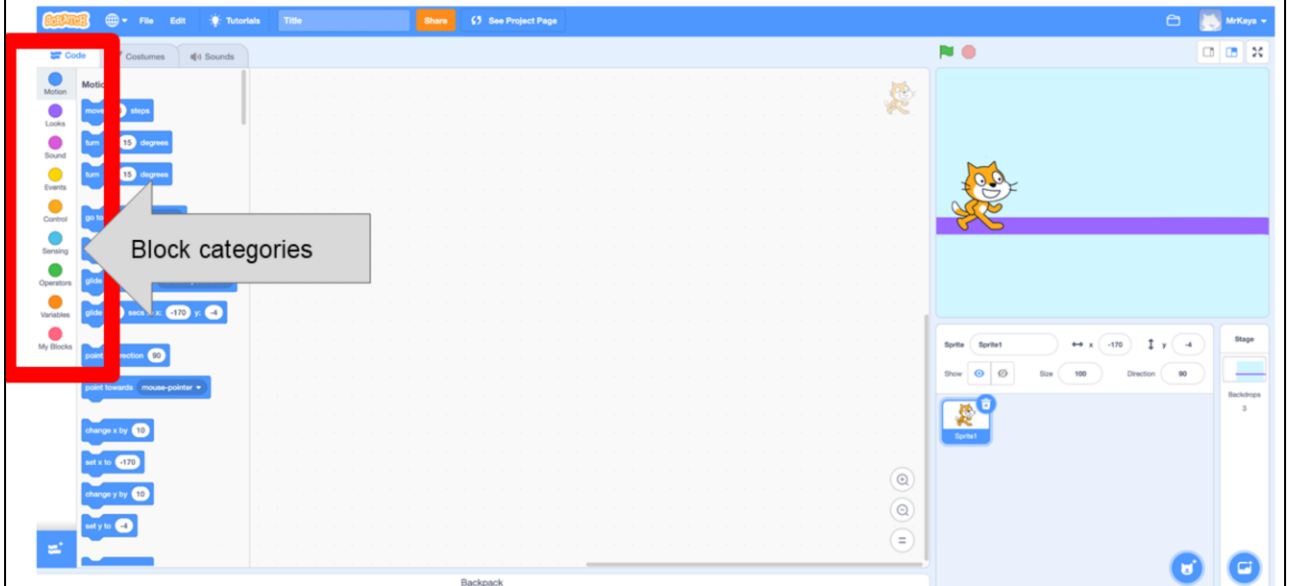


- ✓ Review familiar Scratch blocks with a scavenger hunt
- ☐ Identify new Scratch sound blocks: play sound, record/upload a sound, change the pitch effect of a sound, stop all sounds
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Optional: Introduce lesson, learning goals, and resources (Slides # 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

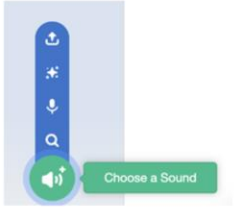
Do I need to stop all sounds?

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?

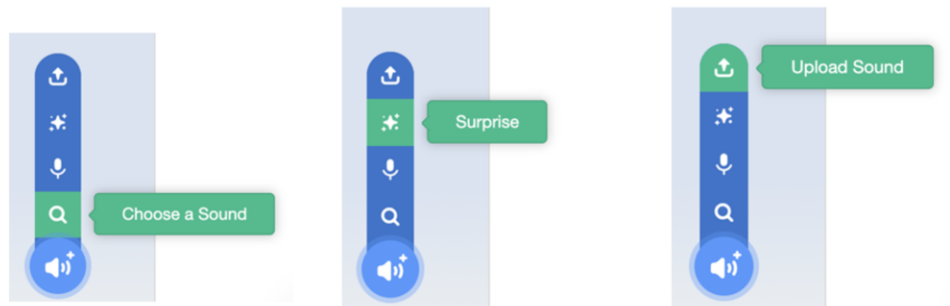
How to choose a sound:

1. 
2. 
3. 

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?



p.s.: Please note that the colors and options of the sound blocks may vary slightly depending on the Scratch platform you are using.

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...



- ✓ Review familiar Scratch blocks with a scavenger hunt
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- ☐ Define code, bugs, and debugging
- ☐ Understand how to debug an algorithm
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- ☐ Evaluate my work
- ☐ Share my animation with a partner

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>

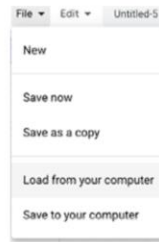
Next, go to the following CS First Scratch [Link](#) and sign in!: <https://bit.ly/3PexYzB>

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

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

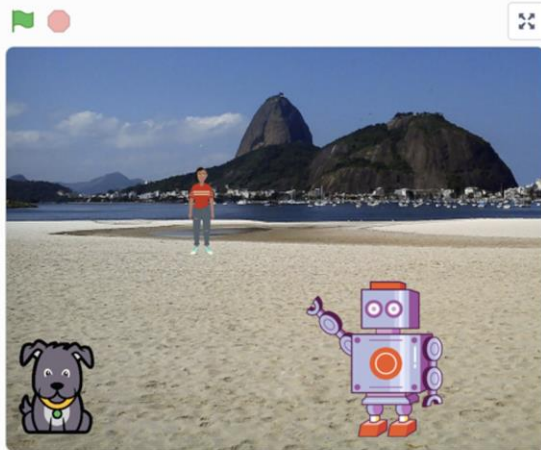
Now you can start debugging!!! Have fun!!!

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?

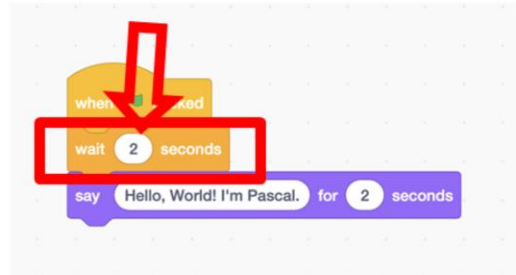


DEBUGGING CHALLENGE 1 ANSWER KEY

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?



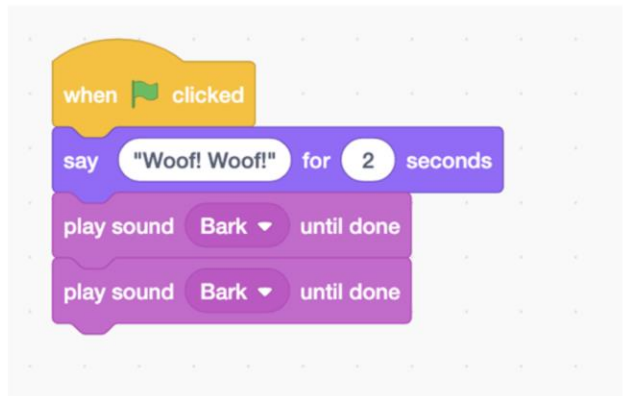
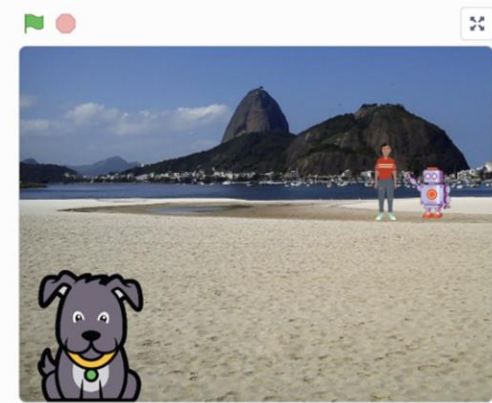
Debug .sb3 file dropbox link:

<https://www.dropbox.com/scl/fi/9064hqcmicagr79mr1kgs/Coco-Debugging-Woof.sb3?rlkey=ebzjz1lfxknmrsv28zvi0tg6a&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/3RriBGg>

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?



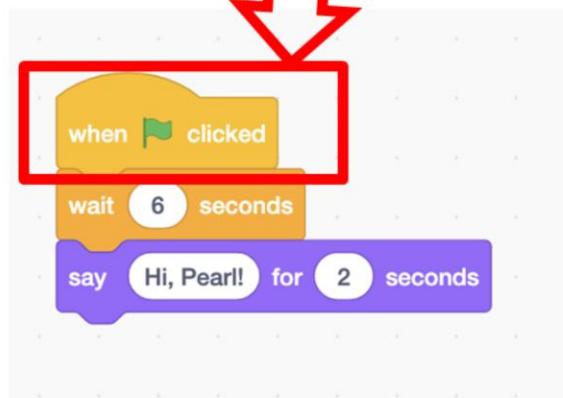
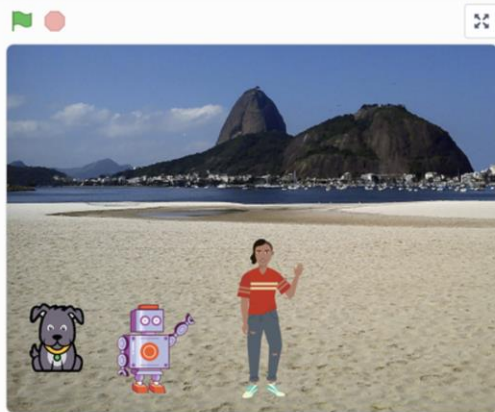
Dropbox link:

<https://www.dropbox.com/scl/fi/8kv373sx0d6g9xm827srm/Coco-Pascal-Pearl-Debugging-Hi.sb3?rlkey=03secq4nslcq2uxs0jizy7er4&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:



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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.”

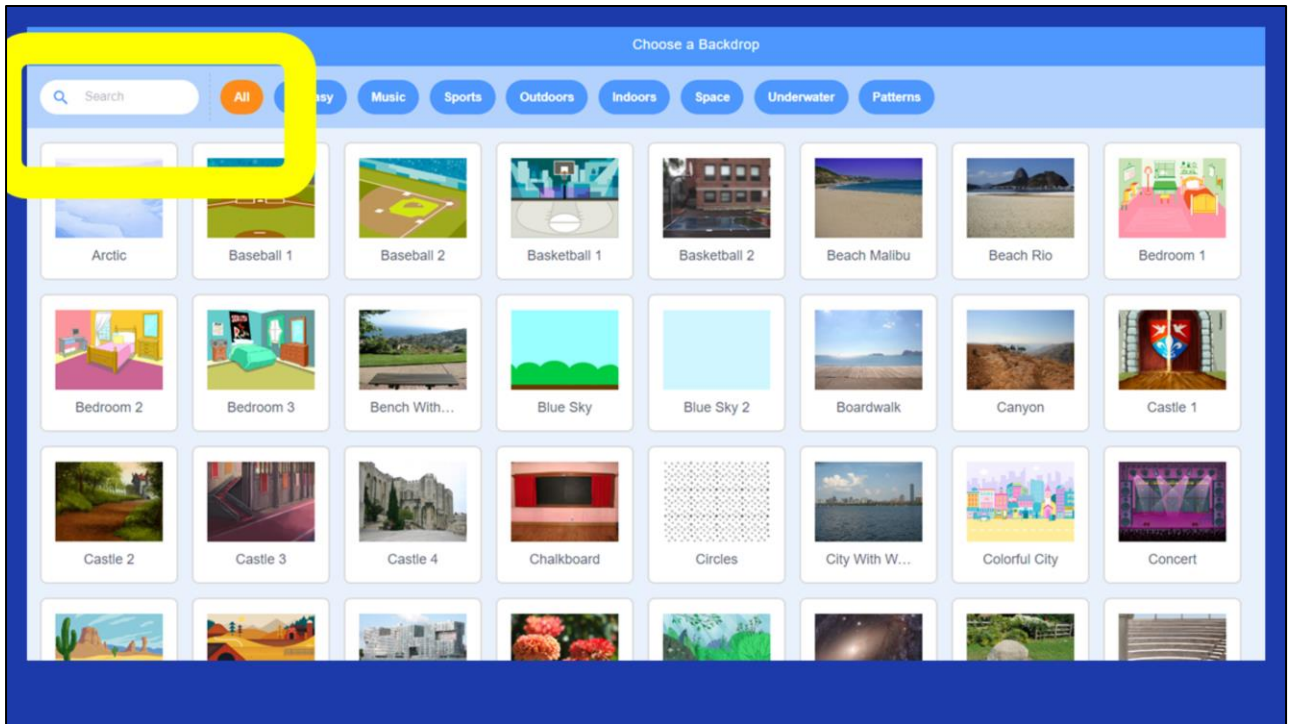


Now, if I was writing a story about a princess who lived in a castle, this backdrop would make more sense.

**“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/o7aaphbglzvswkr/Screen%20Recording%202023-09-19%20at%201.52.23%20AM.mov?dl=0>

LESSON OBJECTIVES: I CAN...



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- ✓ Understand how to debug an algorithm
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- ☐ Finish animating my recipe in Scratch
- ☐ Evaluate my work
- ☐ Share my animation with a partner

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.



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 & Items I will need	Self-monitoring
<p>First First, get all of your materials. You need water and eggs.</p>	<p>Do I need to add a start block? <input checked="" type="checkbox"/></p> <p>Do I need to add a character or object? <input checked="" type="checkbox"/></p> <p>Do I need to add or change a background? <input checked="" type="checkbox"/></p> <p>Do I need to make my character talk? <input checked="" type="checkbox"/></p>	<p>Start block, character, background, speech bubble</p>	<p>I found the start block. I created a character sprite. I added a background. I made my character talk.</p>
<p>Then Then, separate the lemons into juice.</p>	<p>Do I need to add or change a background? <input checked="" type="checkbox"/></p> <p>Do I need to make my character talk? <input checked="" type="checkbox"/></p> <p>Do I need to make my character think something? <input checked="" type="checkbox"/></p> <p>Do I need to create a costume? <input checked="" type="checkbox"/></p> <p>Do I need to switch a costume? <input checked="" type="checkbox"/></p>	<p>Background, character, costume, switch</p>	<p>I made my character talk. I switched a costume.</p>
<p>Next Next, add water and eggs.</p>	<p>Do I need to add or change a background? <input checked="" type="checkbox"/></p> <p>Do I need to make my character talk? <input checked="" type="checkbox"/></p> <p>Do I need to make my character think something? <input checked="" type="checkbox"/></p> <p>Do I need to create a costume? <input checked="" type="checkbox"/></p> <p>Do I need to switch a costume? <input checked="" type="checkbox"/></p>	<p>Background, character, costume, switch</p>	<p>I made my character talk. I switched a costume.</p>
<p>Last Last, stir the ingredients together.</p>	<p>Do I need to add or change a background? <input checked="" type="checkbox"/></p> <p>Do I need to make my character talk? <input checked="" type="checkbox"/></p> <p>Do I need to make my character think something? <input checked="" type="checkbox"/></p> <p>Do I need to create a costume? <input checked="" type="checkbox"/></p> <p>Do I need to switch a costume? <input checked="" type="checkbox"/></p>	<p>Background, character, costume, switch</p>	<p>I made my character talk. I switched a costume.</p>
<p>Finally Great job!</p>	<p>Do I need to create a costume? <input checked="" type="checkbox"/></p> <p>Do I need to switch a costume? <input checked="" type="checkbox"/></p> <p>Do I need to make my character think something? <input checked="" type="checkbox"/></p>	<p>Costume, switch, character, costume</p>	<p>I created a costume. I changed a costume. I made my sprite think something.</p>

LOG INTO COCO AND COMPLETE COLUMNS 2 & 3

Pause while students work in CoCo and Scratch.

VIDEO MODEL

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.

Story: Level 2 Model

My ideas:	What I Want to Do:	Blocks & Items I will need:	Self-monitoring:
First First, get all your materials. You will need lemons and sugar and water.	<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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> I found 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.
Then Then you will need to squeeze your 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"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> I found 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.
Next Next, add sugar and water to your lemon 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"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> I found 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.
Last Last, mix your ingredients.	<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"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> I found 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.
Finally	<input type="checkbox"/> Do I need to create a costume? <input type="checkbox"/> Do I need to switch a costume?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> I created a costume. <input type="checkbox"/> I changed a costume.

Repeated words:
First (4)
Should I use a different word?

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

PAUSE HERE AND CODE IN
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](#)

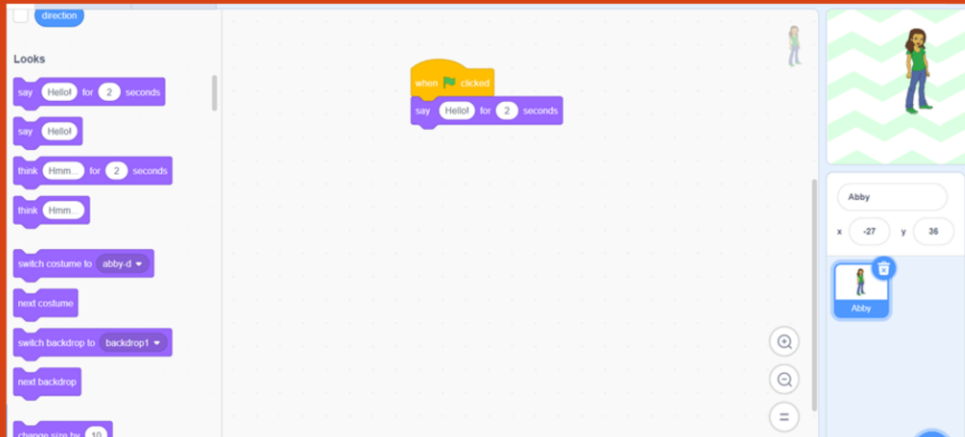
Story: Recipe			
My idea:	What I Want to Do:	Blocks & Icons I will need:	Self monitoring:
First First, get all of your materials. You will need lemons, water, and sugar.	<input type="checkbox"/> Do I need to add a start block? <input type="checkbox"/> Do I need to add a character or object? <input type="checkbox"/> Do I need to add or change a background? <input type="checkbox"/> Do I need to make my character talk?		<input type="checkbox"/> I found 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.
Then Then, separate 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.
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.
I am 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.
Finally Great job!	<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 created a costume. <input type="checkbox"/> I changed a costume. <input type="checkbox"/> I made my sprite think something.

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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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.
 1. Choose "Save to your computer." This will download your Scratch project.
 1. Look in your "Downloads" folder. That's where your saved project might be.
 1. Go to the CoCo website and log in to your [account. https://wego.gmu.edu/scratchgo/login.php](https://wego.gmu.edu/scratchgo/login.php)
1. Click proceed on the correct story in CoCo.

Ready To Work on Your Story?	
first story	(Locked) View it
second story	Proceed
Story 3	Proceed
1. 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: [gga](#)
1. Click "Save".

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?

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