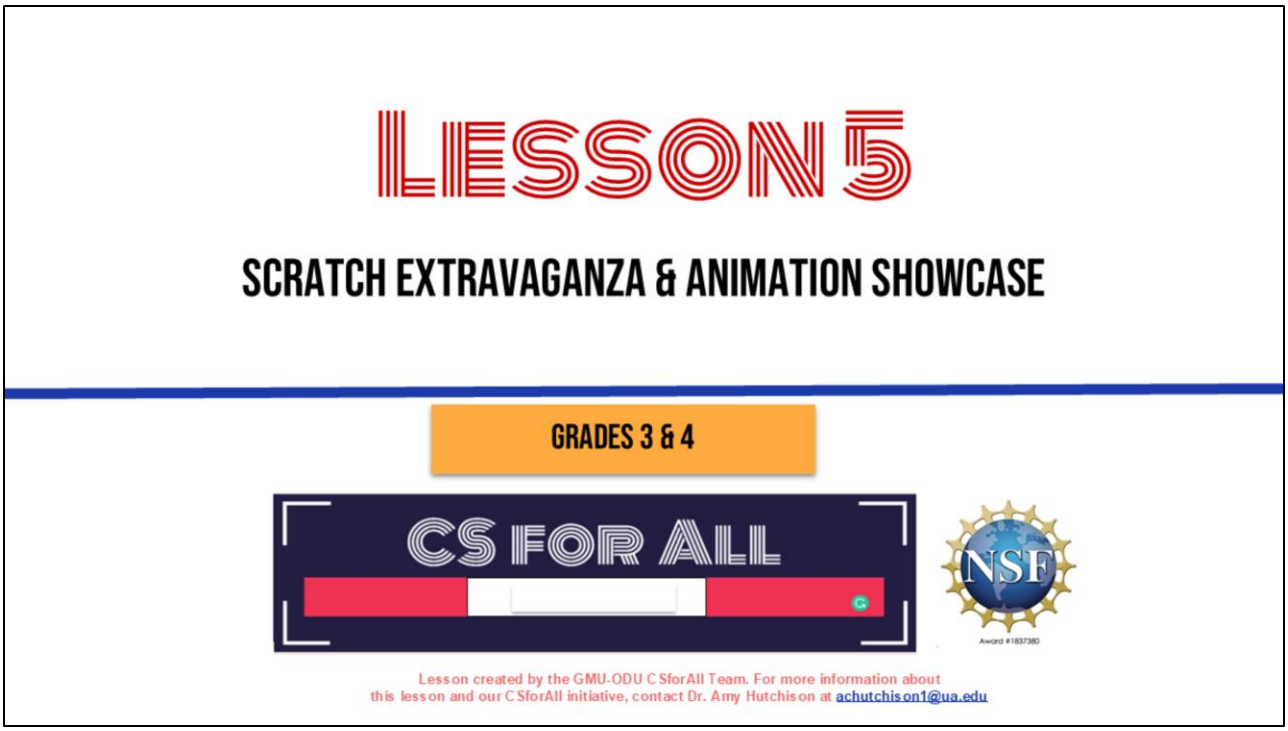


Welcome back to learning about computer science and writing!

# SUMMARY AND STANDARDS

**Summary:**

In this lesson, students will co-write an explanatory text. They will use CoCo and Scratch to code and plan an animation using several new look and control blocks.

**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
a) using sequencing;
b) using events.

Today we're going to write several new stories together and bring them to life with our coding projects!

## MATERIALS AND RESOURCES NEEDED FOR THIS LESSON:

- Chromebook/Laptop
- Internet Access
- Teacher slides
- Scratch for CS First or Scratch offline editor (app)
- Read-aloud of "How to Code a Sandcastle": http://www.youtube.com/watch?v=EX1OXR7eTME
- Hard copies of the Speedwriting storyboard
- Scratch block choice board

**Reminder**:
In this lesson, every student should be **assigned a story in CoCo** using **Level 5.**

The story should be titled "**Lesson 5 Story.**"

Each student should save their work using this naming strategy: "**Student Name + Lesson # + Descriptor",** for example, "**Johnny Lesson 5 Story"**

You will need….[read slide]

## LESSON OBJECTIVES: I CAN...

- ❑ Understand the main idea of “How to Code a Sandcastle”
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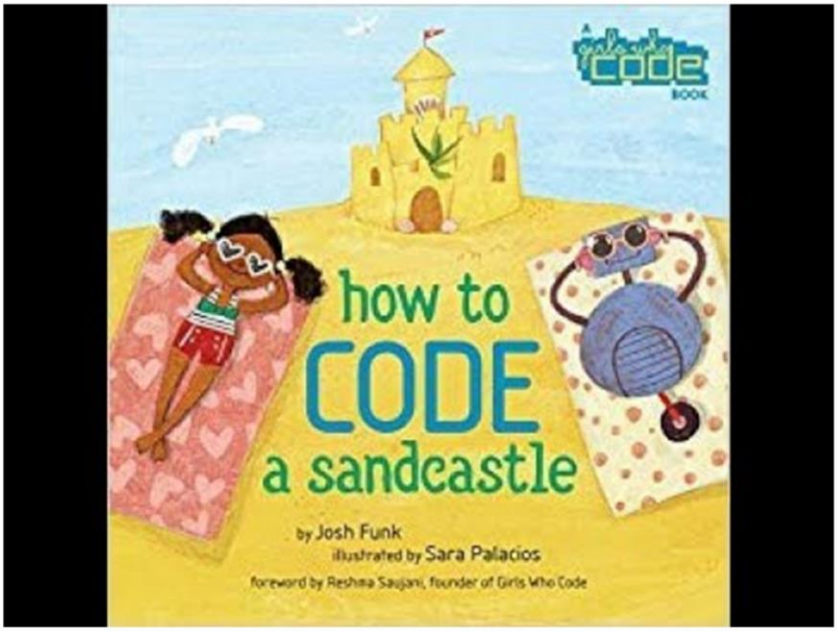
[read slide]

# WARM UP: HOW TO CODE A SANDCASTLE

Let’s start by listening to a fun story about building a sandcastle.

## WARM UP: "HOW TO CODE A SANDCASTLE"

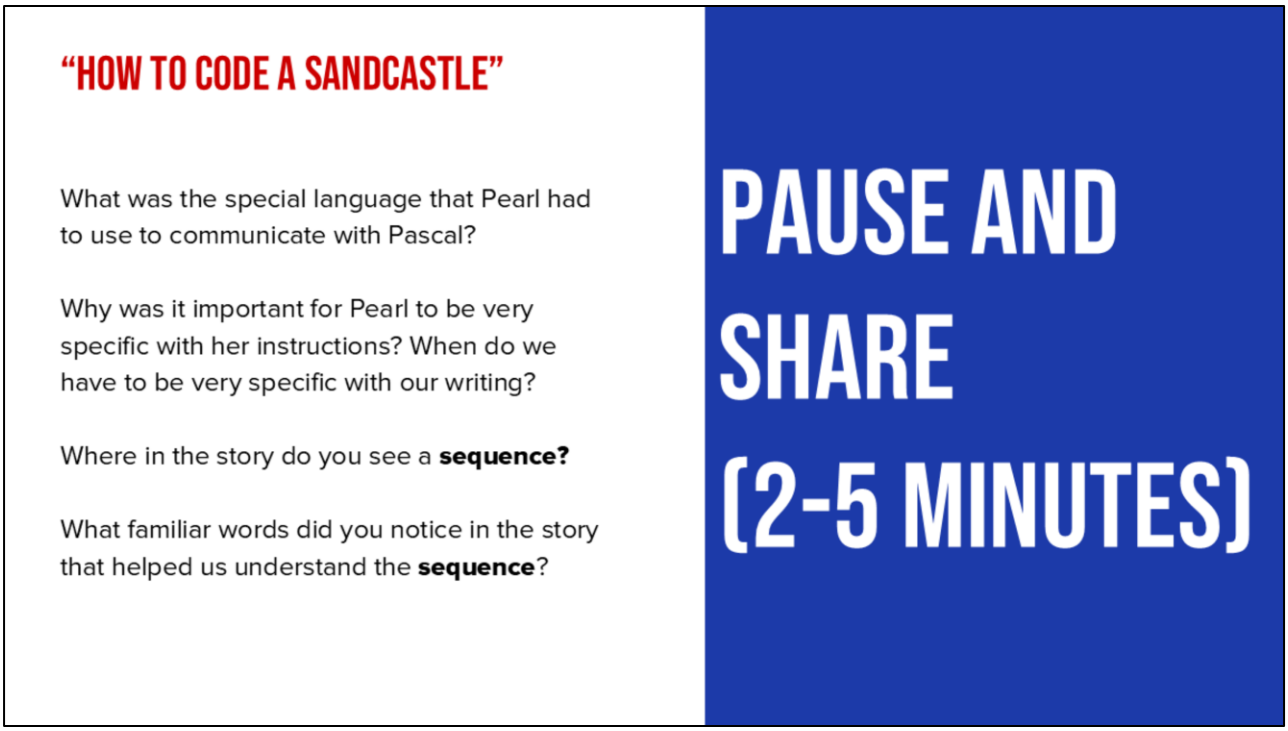



1. (watch until 3:36)

# QUESTIONS TO THINK ABOUT

That was a fun story.

I love going to the beach, I bet I could make a giant sandcastle if I had a robot to help me! Let’s take a moment to think about that story and share….




Take a moment to think about these questions and then raise your hand when you think you have the answers.

## "HOW TO CODE A SANDCASTLE"

What was the special language that Pearl had to use to communicate with Pascal? **CODE**
Why was it important for Pearl to be very specific with her instructions?
When do we have to be very specific with our writing? **In our EXPLANATORY writing.**
Where in the story do you see a **sequence? Pearl has to create a sequence in order for Pascal to understand the instructions in the correct order.**
What familiar words did you notice in the story that helped us understand the sequence? **First, then**

Did you notice that Pearl was using CODE to communicate with Pascal. Remember, when you give instructions to a computer you have to be very specific! We saw some silly things happen when Pearl was not specific enough with Pascal!

Did you remember that you are specific when you write to EXPLAIN, like in your explanatory writing last time? We had to create a sequence and be clear and specific.

Pearl had to create a sequence so that Pascal could understand her instructions. She used transitional words like "First" and "Then" just like we do when we write!

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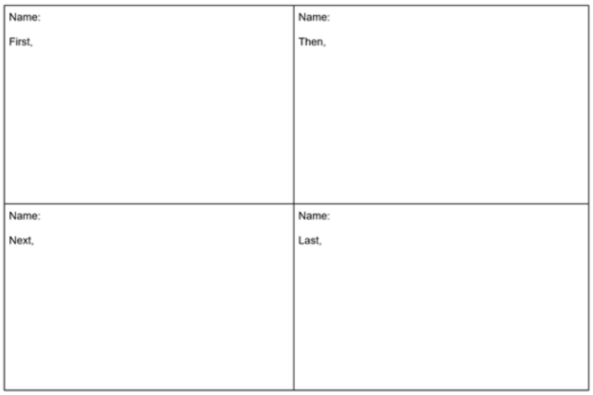
Check off objectives as lesson proceeds.


Our main activity is going to be co-writing stories together. It will be fun!

# CO-WRITING AN EXPLANATORY TEXT

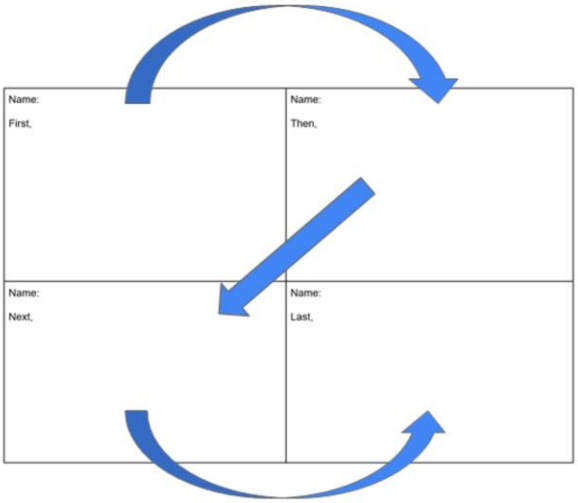
In groups of 4-5, use the speed writing storyboard to write stories collectively! They can be as creative or silly as you want, as long as they **explain something.**

Each person gets their own copy of the speed writing storyboard. Your teacher will set a timer for 5 minutes. As soon as the timer begins, begin writing your explanatory text but **only fill in the section titled "First."**




[read slide]

## CO-WRITING AN EXPLANATORY TEXT




Once time is up, everyone passes their storyboard to the **person on their right**.

They will **pick up where you left off** and fill in "Next."

**Repeat this process** until all sections (First, Next, Then, Last, Finally) are filled in.

Read your stories out loud to one another and enjoy!

[read slide]

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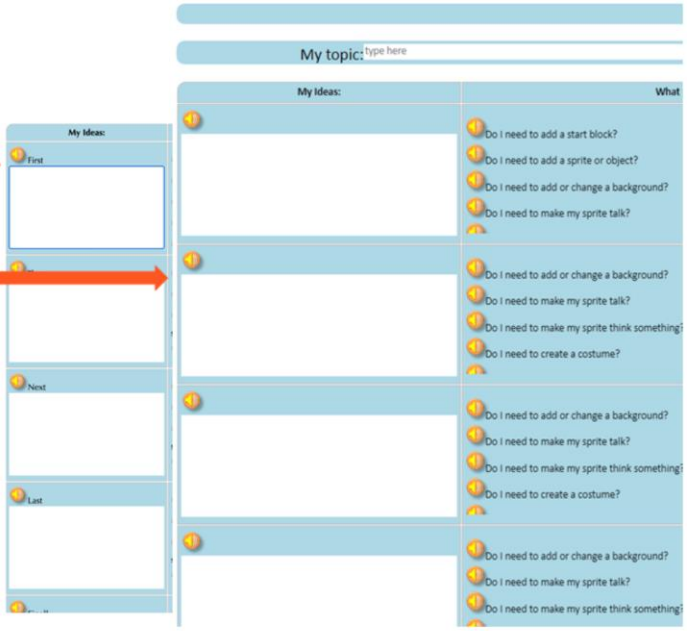
Look how far we’ve come! We’ve already [read slide]

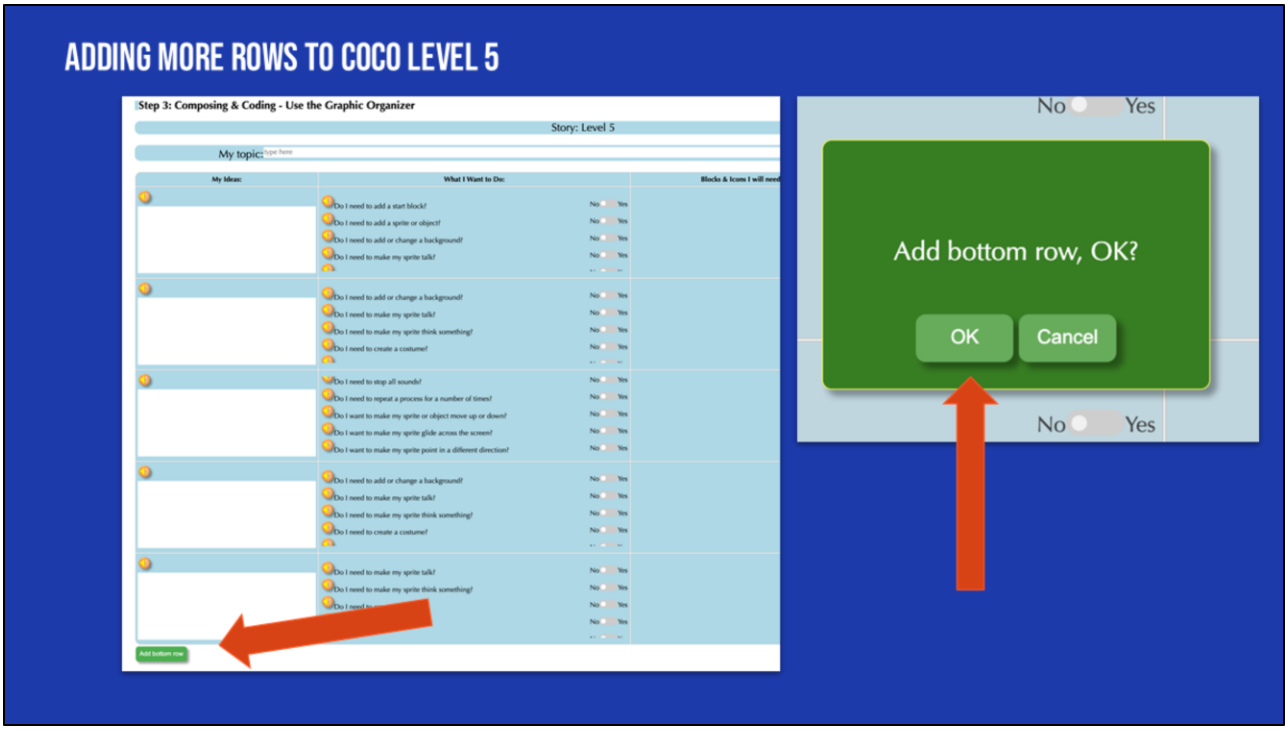

Okay, now it’s time for us to use CoCo to plan our animations.

## COCO, LEVEL 5

1. Can write in ANY kind of story
2. New questions for animating your story
   a. New motion blocks
   b. New sound blocks
   c. New look blocks
   d. New control blocks
3. Can add more rows!




Level 5 of CoCo has even more options for Scratch blocks.




One other change in level 5 is that you can add more rows to CoCo. Click on the green button that says “Add Bottom Row” and then click “OK” and a new row will appear.

# PLANNING IN COCO

- Every person, pick one of the stories to animate in CoCo. It's okay to pick the same one!
- Add the text to CoCo column 1.
- Fill in columns 2 & 3. There are more choices now. Be creative!


[read slide]

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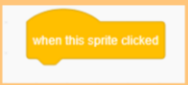
Check off objectives as lesson proceeds.

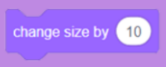
# SCRATCH BLOCK CHOICE BOARD

Hide character

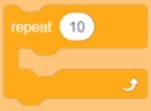

When this sprite clicked



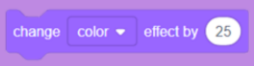

Change size



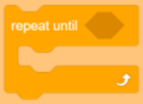

Repeat X number of times



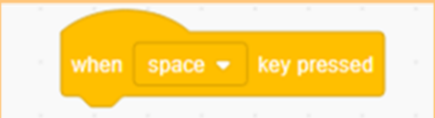

Change color



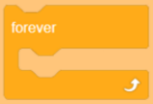

Repeat until




When any key pressed




Repeat forever




Show character

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Check off objectives as lesson proceeds.

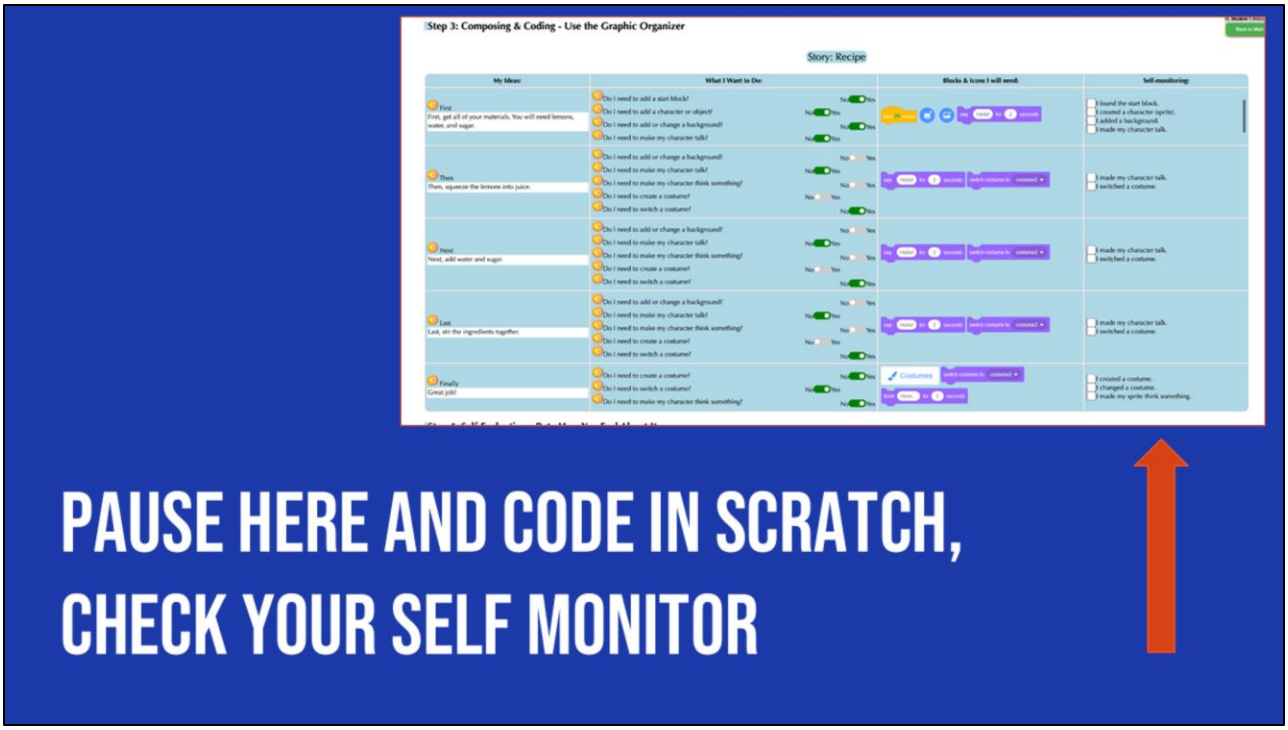
# CODING IN SCRATCH

Now that we've filled in CoCo, we are ready to work in Scratch!

## CODE YOUR ANIMATION IN SCRATCH!

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

Code your animation in Scratch by following these steps: [read slide]




*Pause and wait while students code in Scratch; advise them to check off their self-monitoring prompts*

# 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
1. Click proceed on the correct story in CoCo.


1. Navigate to the section of CoCo where you can upload your project. (only sb3 type and 10Mb max).


1. Click “Save”.


*Model how students can share Scratch creations to their teacher’s studio*

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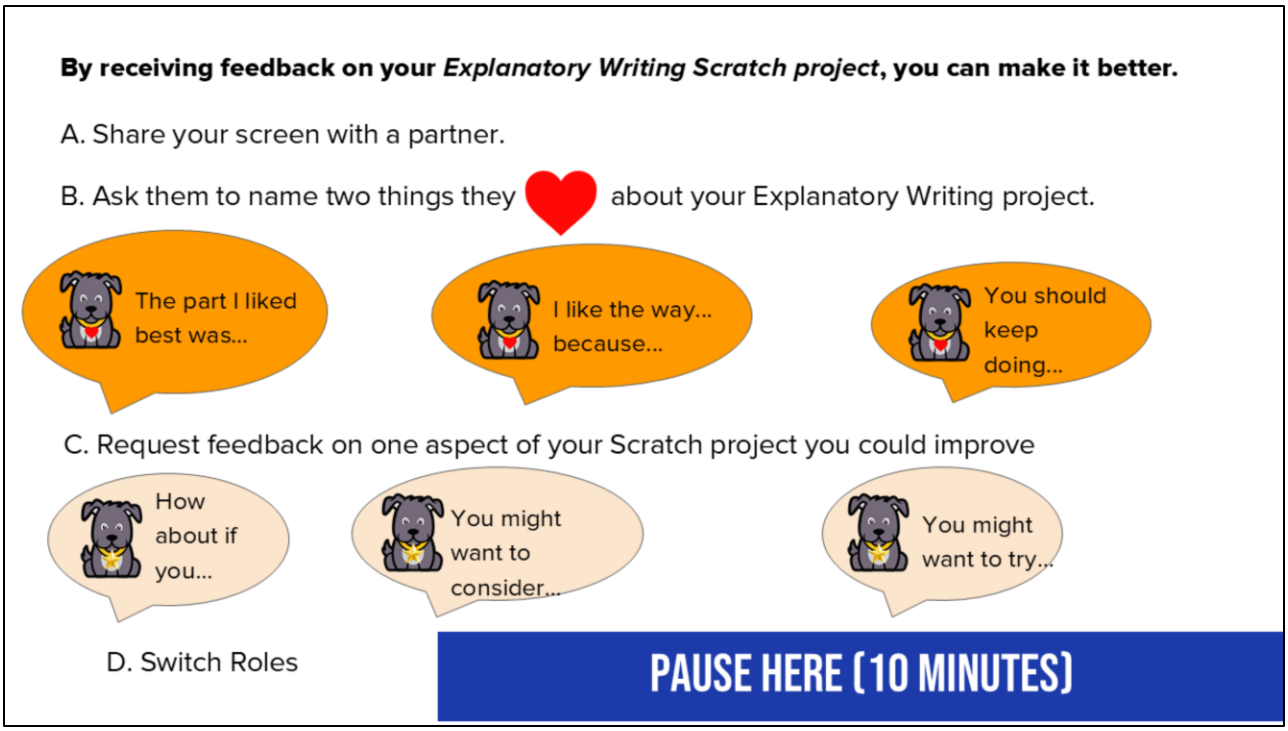
Check off objectives as lesson proceeds.

# WRAP UP: ANIMATION SHOWCASE

Let’s wrap up by sharing our animations!




Here are some suggestions for sharing your work and getting feedback. Feedback can help us learn and make our work better in the future. [Read Slide]
Adapted from Getting Unstuck

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