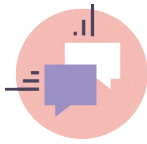


Lesson 4: Dance Off Online



OVERVIEW

In this lesson, students learn how to plan, code, and validate their work by creating a dance off with their sprites on Scratch.

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OBJECTIVES

- I can code a sequence of actions in the order I want them performed.
- I can use the editor, block palette, and stage in Scratch to code my program.



AGENDA

Do Now (5 min) - logging in

- Code Along (15 min): If You Give a Mouse a Cookie
 - Plan - read "If you give a mouse a cookie" instructions
 - Code - code along to the story
 - Debug - add wait blocks to debug
- Code Along (25 min): Dance Off *Plan - write out directions to your dance* Code - code your dance *Debug - add wait blocks to debug
- EXTENSION (15 min): Coding Challenges



VOCAB

- Editor: A program designed for editing computer code by coders.

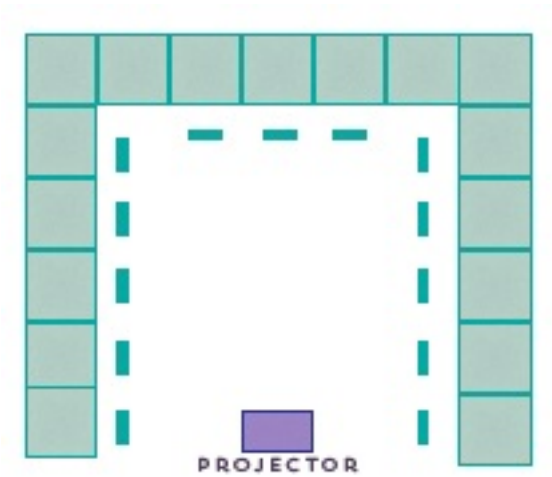


MATERIALS

- Projector

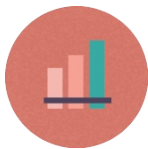
- Idea Journals
- Computers (class set)
- Pencils (class set)

Ideal Desk Setup



Resources

[Powerpoint: Lesson 4](#)



DO NOW



Length: 5 minutes

Prep:

- Computers
- Idea Journals
- Pencils

Teacher Actions	Student Actions
<div>1</div> <p>Circulate room to assist students in logging-in to their Scratch accounts</p> <ul style="list-style-type: none">• If necessary, review the computer usage expectations.	<div>1</div> <p>Students log-in to their Scratch accounts.</p>



CODE ALONG: IF YOU GIVE A MOUSE A COOKIE



Length: 15 minutes

Students code along with the teacher for 15 minutes. Stop the activity at 15 minutes to ensure time for individual coding with the Dance Off activity.

Prep:

- Computers
- Plan Chart
- "If You Give a Mouse a Cookie" book or audiobook Use [this](#) Scratch Project for student code along.

Teacher Actions	Student Actions
<p>1 Read "If You Give a Mouse a Cookie" to students (3 min)</p>	<p>1 Students sit facing teacher, computers closed.</p>
<p>2 Show the step by step plan (2 min) *Ask students to identify connection between a step and what happened in the story.</p> <p>Mouse Will:</p> <ol style="list-style-type: none"> 1. Ask for a glass of milk 2. Go to Milk 	<p>2 Students identify that:</p> <ul style="list-style-type: none"> • Steps 1 & 2 are "... it's going to want a glass of milk." • Steps 2 & 3 are "... it's going to ask for a straw."

3. Ask for a straw
4. Go to straw
5. Ask for a napkin
6. Go to napkin
7. Look in the mirror
8. Go to mirror
9. Ask for a pair of scissors
10. Go to scissors

Code Along (10 min)

- Setup
 - Navigate to “My Classes”, “Exploring Scratch” studio, and open project “If You Give a Mouse a Cookie”
 - Click the green flag to show that the project doesn’t do anything yet... we need to code it!
 - Click “See Inside”
 - Click “Remix”
 - Re-title your work
- Coding

- Steps 3 & 4 are “...it's going to ask for a napkin.”
- Steps 5 & 6 are “...it's going to ask for a straw.”
Continue until you feel students understand the sequence.

- The events block indicates when the sequence should begin:

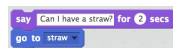


- Code the first 2 steps of the plan:

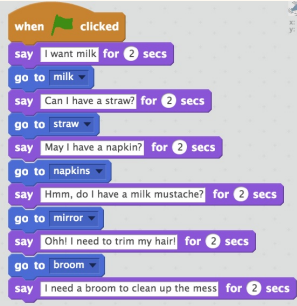


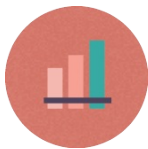
- Pause to run the program and check it is making sense

- What do you think the next two blocks will be?



- Continue to code and pause to check after every 1-2 lines you add. Check off the plan as you go through it. Every time you re-run it you will need to move the mouse

<p>back to its starting point.</p>	
<p>3 Check student work.</p>	<p>3 Students turn to their computers and follow the steps in the code along, giving thumbs up when ready for a next step.</p> <ul style="list-style-type: none">• Remind students to:<ul style="list-style-type: none">◦ Code the correct sprite◦ Choose the “say for 2 sec” block◦ Move the mouse back to its starting point before re-running the code <p>Finished program:</p> 



CODE ALONG: CHOREOGRAPH A DANCE!



Length: 25 minutes


Students code along with the teacher until they are ready to plan, code, and validate their dance off code.

Prep:

- Idea Journals
- Computers
- Pencils

Teacher Actions	Student Actions
<div>1</div> <div>Plan 3 step dance (5 min)</div> <div><ul style="list-style-type: none">• Introduce activity: “We are going to choreograph a dance for our Sprite.”• Pick 5 dance moves for our sprite to execute (prioritize using the highlighted blocks):<ul style="list-style-type: none">◦ Say◦ Move◦ Turn◦ Think◦ Change size</div>	<div>1</div> <div>Students volunteer 5 dance moves from the list to choreograph their dance.</div>

<ul style="list-style-type: none"> ◦ Change color ◦ Next costume • Write out the 5 dance moves in order on your planning chart 	
<p>2 Code Along (10 min)</p> <ul style="list-style-type: none"> • Setup <ul style="list-style-type: none"> ◦ Navigate to "My Classes", "Exploring Scratch" studio, and open project "Dance Off" ◦ Click the green flag to show that the project doesn't do anything yet... we need to code it! ◦ Click "See Inside" ◦ Click "Remix" ◦ Re-title your work <p>Code</p>	<p>2 Students follow along on their computers as they code the dance for the first sprite.</p>

<div><ul style="list-style-type: none">• We will begin when the green flagged is clicked: • Drag coding blocks to represent the 3 actions and test code by pressing the green flag<p>Adjust</p><ul style="list-style-type: none">• Play with what happens when you change numbers in each block. After each adjustment run the code gain to see how it affected the dance.<p>Repeat</p><ul style="list-style-type: none">• Copy and paste the blocks using the stamp tool so that it repeats the actions multiple times.</div>	
<div><div>3</div><div>Students plan and code dances for Khalid (10 min)</div></div>	<div><div>3</div><div>Students plan in their idea journals their dance.</div></div>

<ul style="list-style-type: none"> • (2 min) In idea journals have students write out their 5 step dances using the given blocks • (8 min) Students delete the code we have and create their own 	
<p>4 Share dances (5 min)</p> <ul style="list-style-type: none"> • Click "Share" • Click "Studios" under your project • Click the check mark next to "Dance Off" 	<p>4 Students put their projects into the shared studio</p>
<p>5 Go over norms for viewing peer's work</p> <ul style="list-style-type: none"> • Constructive Feedback: "It would be cool if..." • Positive Speak: Tell someone what you like about their program before giving any constructive feedback 	<p>5 Students read norms and share additional norms they would like their peers to adhere to.</p>

<ul style="list-style-type: none">• No negative comments	
<div>6</div> <p>Students view their peer's work</p> <ul style="list-style-type: none">• Click "Dance Off" to view everyone's dances	<div>6</div> <p>Students browse each other's projects in the studio.</p>



EXTENSION ACTIVITY



Length: 15 minutes

If you have an 60 minute block for class, try this extension activity.

Prep:

- Computers

Teacher Actions	Student Actions
<div>1</div> Students can continue to improve upon their dances	<div>1</div> Lab time
<div>2</div> Or students navigate back to the "Explore Scratch" studio and attempt to solve the 3 challenge projects	