Lesson 4: Dance Off Online



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.

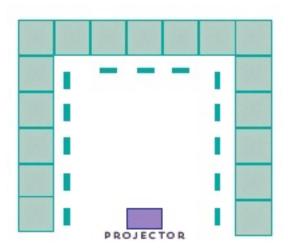


MATERIALS

Projector

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

Ideal Desk Setup



Resources

Powerpoint:Lesson 4





Length: 5 minutes

Prep:

- Computers
- Idea Journals
- Pencils

Teacher Actions	Student Actions
Circulate room to assist students in logging-in to their Scratch accounts If necessary, review the computer usage expectations.	Students log-in to their Scratch accounts.



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 inidividual 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
Read "If You Give a Mouse a Cookie" to students (3 min)	1 Students sit facing teacher, computers closed.
Show the step by step plan (2 min) *Ask students to identify connection between a step and what happened in the story. Mouse Will: 1. Ask for a glass of milk 2. Go to Milk	 Students identify that: 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

back to its starting point. Check student work. 3 Students turn to their computers and follow the steps in the code along, giving thumbs up when ready for a next step. Remind students to: Code the correct sprite Choose the "say for 2 sec" block Move the mouse back to its starting point before rerunning the code Finished program:



CODE ALONG: CHOREOGRAPH A DANCE!



Length: 25 minutes

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

Prep:

- Idea Journals
- Computers
- Pencils

Teacher Actions	Student Actions
 Plan 3 step dance (5 min) 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): Say Move Turn Think Change size 	1 Students volunteer 5 dance moves from the list to choreograph their dance.

- Change color
- Next costume
- Write out the 5 dance moves in order on your planning chart
- 2 Code Along (10 min)
 - Setup
 - 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-titleyour work

Code

2 Students follow along on their computers as they code the dance for the first sprite.

 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

Adjust

 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.

Repeat

- Copy and paste the blocks using the stamp tool so that it repeats the actions multiple times.
- 3 Students plan and code dances for Khalid (10 min)
- 3 Students plan in their idea journals their dance.

- (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
- 4 Share dances (5 min)
 - Click "Share"
 - Click "Studios" under your project
 - Click the check mark next to "Dance Off"
- 4 Students put their projects into the shared studio

- Go over norms for viewing peer's work
 - Constructive Feedback: "It would be cool if..."
 - Positive Speak:
 Tell someone
 what you like
 about their
 program before
 giving any
 constructive
 feedback
- 5 Students read norms and share additional norms they would like their peers to adhere to.

No negative comments	
6 Students view their peer's work • Click "Dance Off" to view everyone's dances	6 Students browse each other's projects in the studio.



EXTENSION ACTIVITY



Length: 15 minutes

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

Prep:

Computers

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