

Website: [CS+Community Week 2 Lesson 1](#)

Unit of Inquiry Name: CS+Community
Time: 50 Minutes

Week 2 Lesson # 1

Lesson Core Idea: Understanding Forever and Repeat Loops

Materials Needed	Prepare
• Website: Week 2, Lesson 1 • Reflection Slides: ◦ Week 2, Lesson 1 TIPP&SEE Slide • Scratch Starter Project ◦ Week 2 Lesson 1: Mindful Breathing • Student Chromebooks, laptops, or tablets with reliable wifi • Teacher computer with projector or screen sharing	• Walk through the CS+Community Week 2 Lesson 1. • Make sure you preview the Reflection Slides so you know how to guide students' observations. • Add Scratch Starter Project - Week 2 Lesson 1: Mindful Breathing for students to access and open from Google Classroom (or LMS used)
To Post on Google Classroom: WEEK 2 LESSON 1	
Go to today's website CS+Community Week 2 Lesson 1 and follow instructions. EXAMPLE Google Classroom Assignment below: Dear Programmers, Open the Week 2 Lesson 1: Mindful Breathing Scratch Project - https://scratch.mit.edu/projects/546135002 Try all of these challenges on this Scratch project - • Remix the project • Fix the sun sprite so you can breathe with it STEP 6 Do More (This is from Website): Looking for more of a challenge - • Add sounds to create a peaceful breathing environment. • Add more sprites to help relax while you breathe. Happy coding! What to link to this Google Classroom Assignment Scratch Project - https://scratch.mit.edu/projects/546135002 Optional - Username and Password list for students to log back into Scratch	

Stage	Teacher Does Strategies/activities	Student Does Learning Experience...
Lesson 1 1 UCSD Does 5 minutes	<i>Hello programmers! Today, we're going to explore forever and repeat loops in Scratch!</i> <i>First, a programmer from UC San Diego is going to introduce our challenge. Let's get started with TIPP and SEE!</i> Play video - Week 2 Lesson 1: Mindful Breathing on Scratch	Students watch Week 2, Lesson 1: Mindful Breathing on Scratch video.
Lesson 1 2 Turn & Talk 5 minutes	<i>Let's talk about what we noticed.</i> <i>What happens to the sun sprite when I click on the green flag?</i> <i>Turn to your partner and share what you noticed about the sun sprite.</i> <i>You can use the sentence frame -</i> <i>It gets/ goes/ moves ____ and ____ forever.</i> <i>Who can share what you talked about with the class?</i>	Students turn and talk with a partner using the sentence frame - It gets/ goes/ moves ____ and ____ forever. One pair shares what they talked about with the class.
Lesson 1 3 We Do 10 minutes	<i>Great work, programmers! I heard a lot of wonderful conversations about how the sun was getting bigger and smaller over and over again. Now, it's time to take a closer look at this Scratch project and see how it works!</i> Open the Scratch Starter Project - Week 2 Lesson 1: Mindful Breathing <i>Let's go through TIPP together!</i> <i>Who can tell us what the title of the project is?</i> <i>What are the instructions?</i> <i>What is the purpose?</i> <i>How do we play it?</i>	Students answer questions and direct the class to the title, instructions, purpose and how to play the game.

Awesome! Now that we've figured out the title, instructions and purpose of the Scratch project and played it, we've found some cool problems! Let's SEE what our challenge is!

SEE stands for Sprites, Events, Explore! This tells us how to look at a program and figure out what it does. Let's use SEE to look at our Scratch program. We start by clicking "See Inside" at the top.

Click on "See Inside". Then, model the video by looking at each Sprite, seeing what events it has, and exploring the code.

What do we notice about the Sprite(s)?

What events do we see in the code?

What do you want to explore?

Open the TIPP&SEE Reflection Slide - Week 2 Lesson 1:
TIPP&SEE Slide

Read the Reflection Slide and ask students to navigate as you move the mouse, click and type what students direct. (Teacher drives/ students navigate - *teacher as lead learner*)

4 Think Pair Share

This project was pretty cool, but I think we can make it even better.

First, think to yourself.

What's wrong with the animation? How can we make it better?

Then, share with your partner:

The animation is too _____. I will make it _____ by _____.

Who can share what you talked about with the class?

Finish the Reflection Slide and ask students to navigate as you move the mouse, click and type what students direct. (Teacher

Students navigate as the teacher drives the mouse and keyboard to answer the questions on the Week 2 Lesson 1: TIPP & SEE Slide to show what the event blocks currently are in the Scratch project.

Students think independently about their answer to the question.

Students/ Programmers Say

The animation is too _____. I will make it _____ by _____.

Students help guide the teacher to change the blocks to the new version slowing down the sun sprite.

	drives/ students navigate - <i>teacher as lead learner</i>) <i>Let's see what happens when we change the code like we just did on this Reflection Slide. What happens when we repeat 100 instead of 25?</i> <i>What happens when we 'change the size' by 1 and -1 instead of 25 and -25?</i>	Students describe how the sun sprite gets larger and smaller more slowly. Students describe how sun sprite changes size by less - it doesn't get as big or as small.
Lesson 1 5 You Do 30 minutes	<i>Great work, programmers! Now, we're ready to explore and take on the programming challenge for today!</i> <i>You'll find a link to the Scratch project on Google Classroom and the challenge:</i> • <i>Remix the project.</i> • <i>Fix the sun sprite so you can breathe with it.</i> 6 Do More <i>If you finish that challenge and want another challenge, try...</i> • <i>Adding sound to create a peaceful breathing environment.</i> • <i>Add more sprites to help relax while you breathe.</i> <i>Remember, we can always challenge ourselves to explore and try new things as programmers! Let's get in there, have fun and find some cool problems to solve!</i> <i>Also, remember to SHARE your project to our class studio. First, sign in. Then, click on the Green Remix Button and the Orange Share button. The last step is adding it to our studio - _____. (Remind students of studio name)</i> Facilitator Questions • Who's got a cool problem to share? (Growth mindset, facilitates students learning from each other) • _____, show us how far you have gotten. (Focus on the journey and learning, not "finishing".)	Students go to Google Classroom to open the link to the Scratch Project - Week 2 Lesson 1: Mindful Breathing and read the directions for their programming challenge. One student shares their screen to show how to remix and share their project to the class Scratch studio. Students work individually on the programming challenge and ask for help or to share their screen if they have a question or a cool problem to share. Students share cool problems with the class (ideally projecting their screens) and other students help with problem solving.

	• I don't know; let us learn together! (Be a Lead Learner) • We can always do more! Let's look at the purple "Do More" section for some ideas! (Differentiation) <i>Wow, amazing work today, programmers! I love the way you shared cool problems and worked together to solve them!</i> <i>Before we end, today, let's make sure we have all shared our work to the class Scratch Studio.</i> If you can find a student who hasn't shared yet, that student can share his or her screen and show the class how to remix, share and make sure their work gets shared to the class Scratch Studio.	Students drive while other students (and the teacher, if necessary) help them navigate through their questions and challenges. Students share their remixed projects to the studio. A student shares his or her screen to show how to remix and share his or her project to the class studio.
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