

Lesson 10: Mini-Project - Captioned Scenes

Overview

Question of the Day: How can we use Game Lab to express our creativity?

After a quick review of the code they have learned so far, students are introduced to their first creative project of the unit. Using the problem-solving process as a model, students define the scene that they want to create, prepare by thinking of the different code they will need, try their plan in Game Lab, then reflect on what they have created. They also have a chance to share their creations with their peers.

Purpose

This lesson is a chance for students to get more creative with what they have learned. Some students may spend more time in the animation tab drawing than programming. Encourage students to spend time on parts of the activity that interest them, as long as they meet the requirements of the assignment.

The open-ended nature of this lesson also provides flexibility for the teacher to decide how long students should spend on their work, depending on the scheduling demands of the particular course implementation.

Assessment Opportunities

Use the project rubric attached to this lesson to assess student mastery of learning goals.

Standards

Full Course Alignment

CSTA K-12 Computer Science Standards (2017)

- **AP** - Algorithms & Programming

Agenda

Lesson Modifications

Warm Up (5 minutes)

Review

Activity (35 minutes)

Objectives

Students will be able to:

- Use a structured process to plan and develop a program.

Links

Heads Up! Please make a copy of any documents you plan to share with students.

For the teachers

- **CSD Unit 3 - Interactive Animations and Games** - Slides

For the students

- **Captioned Scenes** - Rubric
- **Sprite Scene Planning** - Activity Guide

Teaching Guide

Lesson Modifications



Attention, teachers! If you are teaching virtually or in a socially-distanced classroom, please **click here** to access modifications that can be used during this lesson.

Warm Up (5 minutes)

Review

Prompt: Write down as many blocks as you can remember from Game Lab. Make sure you know what each one does, especially the inputs, or parameters, for each of the blocks.

Share: Allow students to share out what they remember as a group review.

Discussion Goal

The goal of this discussion is to review the different blocks and skills that students have learned. As students talk about the different blocks, try to steer the conversation into how they can be used creatively, to link into the main topic of the day.

Remarks

You've already learned how to do some really great things in Game Lab. Today you'll have a chance to put them all together to make an interesting scene to share with the world. That means instead of trying to recreate someone else's idea, you're going to get to come up with an idea of your own, so it's time to get creative!

Question of the Day: How can we use Game Lab to express our creativity?

Activity (35 minutes)

Distribute: (Optional) pass out copies of the activity guide. Students can use this sheet to plan out the scene they create at the end of this lesson, but the planning can also be completed on scratch paper.

Transition Send students to Code Studio.

1

Sprite Scenes

2

Create a Background



Add Sprites



Add Text



Review Your Scene

Gallery Walk

Allow students to walk around the room and see the pictures that each of their classmates has coded. Celebrate all of the different ideas that students were able to implement with the same basic code.

💡 Teaching Tip

You may choose to formalize this process by having each student write down one positive quality of each project, or having students "draw names" to comment on one particular classmate's work.

Wrap up (5 minutes)

Journal

Question of the Day: How can we use Game Lab to express our creativity?

Prompt: What was one especially creative way you saw someone else use the blocks today?

Share: Have students share out what they appreciated about their classmates' projects. You may want to do this "popcorn" style, with each student who responds choosing the next person to share.

💬 Discussion Goal

This discussion should serve as a celebration of what the students have accomplished. As students share out what they have seen, encourage them to learn from each other and ask questions if they were not sure how to do something. Highlight how students were able to do very different things with the same tool.