

Lesson 11: Creative Coding with The Theater – Day 1

45 minutes

Overview

How do I identify and prioritize the tasks I still need to complete for my project?

Students continue to develop their Creative Coding Project to create a program that portrays a personal interest or solves a problem using The Theater. Students first self-assess their work to evaluate their progress in completing project requirements, then continue developing their projects. Students then conduct acceptance testing to determine which of their user stories are complete and use the self-assessment and peer feedback to prioritize their remaining tasks.

Agenda

Project Setup

Warm Up (10 minutes)

Project Self-Assessment

Activity (30 minutes)

Development

Acceptance Testing

Wrap Up (5 minutes)

Project Planning Board

Assessment (Optional)

Objectives

Students will be able to:

- Develop a program using object-oriented programming that portrays a personal interest or solves a problem
- Prioritize project tasks based on self-assessment and peer feedback
- Self-assess progress in completing project requirements
- Write scenario-based acceptance criteria for a program feature

Preparation

- Create code review groups if you are not reusing the same groups
- Check the **Teacher's Lounge** for verified teachers on the CSA Forum to find additional strategies or resources shared by fellow teachers

Links

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

For the students

- **Creative Coding with The Theater Project Planning Guide - Handout**

Vocabulary

- **Acceptance Criteria** - The conditions that a program must meet to be accepted by a user
- **Acceptance Testing** - A test conducted to determine if requirements are met

Teaching Guide

Project Setup

The unit assessment project assesses proficiency in the knowledge and skills developed in this unit. Students work on the project throughout the unit to brainstorm, plan, and begin developing their program. Students then have three dedicated class periods to refine and complete their projects. Lessons 11, 12, and 13 collectively include instructions for the three-day project.


If there is not enough time for the three-day project, a one-day option achieves the targeted learning objectives and goals. If using this option, refer to the **Creative Coding with The Theater Project 1 Day Lesson Plan**. Direct students to develop their program on Lesson 13 to submit their project. While the one-day option covers the learning objectives and goals, it shortens planning and reflection time. Consider this tradeoff when deciding which version to use.

Warm Up (10 minutes)

Project Self-Assessment

Remarks

Before working towards your final benchmark, review the project requirements and rubric and evaluate your progress. Self-assessing your progress will help you identify which tasks to focus on during your project workdays.

 **Do This:** Have students individually self-assess their project using the rubric on the last page of the Creative Coding with The Theater Project Planning Guide and review any remaining questions in the "Need to Know" column on page two.


 **Discuss:** Use the Hold That Thought strategy to discuss the prompt.

- *What questions do you still have that need answering for this project?*

Discussion Goal: Students share any questions they still have in their "Need to Know" column.

Teaching Tip

Students may have questions that are unrelated or beyond the scope of the project. Encourage students to research these questions as extension activities. Focus this discussion on answering questions specific to the content covered in this unit and for the project.


 **Do This:** Have students post tasks they want to complete for the third benchmark in the "To Do" column of their Project Planning Board.


Activity (30 minutes)

Development (15 minutes)

Remarks

Using the remaining items on your Project Planning Board and the feedback from your peers, continue to develop your Creative Coding Project. Each time you complete a goal, commit your code and move the tasks to the next column. There should only be one item in the “In Progress” column at a time, meaning that each item should be entirely completed before moving on to the next item.

 **Do This:** Have students prioritize the remaining tasks on their Project Backlog and Project Planning Board based on feedback and self-assessment.

 **Do This:** Direct students to Level 1 on Code Studio to work on the Creative Coding with The Theater Project.

 1

Creative Coding with The Theater Project

Teaching Tip


Remind students to refer to their Project Planning Board to decide what tasks to work on during this time. You can also encourage students to request a code review from their peers as they work.

Acceptance Testing (15 minutes)

Remarks

One of the most important aspects of software engineering is an understanding of what it means for an item to be done. You may have considered an item to be done once you have finished writing it into your code. Others may consider it to be done after it has been thoroughly tested and reviewed for bugs. When working for a client, an item is considered to be done when requirements set by engineers and the client have been met.

To define what it means for an item to be done, software engineers write acceptance criteria for each item.

 **Do This:** Click through the animated slide to define *acceptance criteria* and outline the steps for writing acceptance criteria in a scenario-based format.


 **Do This:** Demonstrate an example of scenario-based acceptance criteria.


 **Display:** Show the video - *Software Engineering: Acceptance Testing*.

 **Do This:** Click through the animated slide to define *acceptance testing*.

Remarks

Now it's your turn to write and test acceptance criteria for your user stories. Your reviewer should test your program and determine which of your user stories are complete and which ones still need work.

 **Do This:** Click through the animated slide to have students participate in the Code Review Call and Response.


 **Do This:** Direct students to complete a code review on Level 2. Have students write a code review request that includes acceptance criteria for their user stories. Afterward, students review their peer's code and determine if the acceptance criteria are met.

 2

Code Review: Creative Coding with The Theater Project

Wrap Up (5 minutes)

Project Planning Board

 **Do This:** Have students update their Project Planning Board and Project Backlog with any tasks they completed, changed, or added.

Assessment (Optional)

Creative Coding with The Theater Project: You can review the Project Planning Board as an optional completion assessment.



This curriculum is available under a
Creative Commons License (CC BY-NC-SA 4.0).

If you are interested in licensing Code.org materials for commercial purposes **contact us**.