

Lesson 2: Prototyping: A Place to Live Together in Peace

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Grade Level(s)

Grade 4

Lesson Overview

In this lesson, students will work together to brainstorm ideas for designing a space for Chief Chowig and Father Serra to cohabitate peacefully.

Learning Objectives

- To empathize with historic people
- To make inferences
- To strategize
- To plan, design, and prototype

Standards

MS-ETS1-1. Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

History–Social Science Content Standards for California Public Schools

4.1 Students demonstrate an understanding of the physical and human geographic features that define places and regions in California

4.2 Students describe the social, political, cultural, and economic life and interactions among people of California from the pre-Columbian societies to the Spanish mission and Mexican rancho periods.

Preparation

Be sure to have all “needs” statements from Lesson 1 and gather all prototyping materials

Materials and Resources

Maps of California
White boards
Sticky notes
Scissors
Glue
Crayons
Paper
Cardboard
Markers
Other prototyping materials as needed

Activity 1: Ideating (15 Minutes)

- Give the students the challenge of designing a space for both Father Serra and Chief Chowig’s people to cohabitate.
- They will begin, with their partners, to ideate possible solutions. They will do this on white boards and with sticky notes. They can write out their ideas or they can draw them. After 15 minutes they will be asked to narrow down to one idea.

Activity 2: Prototyping (30 Minutes)

- Students will use available materials (cardboard, felt, various supplies) to build prototypes.
- They can prototype the actual classroom space or make a smaller version of the settlements. Maps of California will be provided.

Activity 3: Feedback (20 Minutes)

- Once they have their prototype, students will be given three minutes to talk about how they will present their design to the class and to Father Serra and Chief Chowig (the teachers).
- Chief Chowig and Father Serra will then give constructive feedback on the designs.

Troubleshooting

Giving time limits for gathering prototyping materials and for completing the rough prototype are crucial for keeping students on task. Time limits can be adjusted according to on-task students' needs.

Assessment

- Ask students to defend the decisions they made in designing their spaces.
- Do they accommodate the needs of both Father Serra and Chief Chowig?
- Are both parties appeased enough to live there?
- Do the spaces and ideas thoughtfully consider the two cultures?
- Are the culture, beliefs, languages, motivations, and living styles thoughtfully considered?
- How can this relate to real world situations?