



Science and Innovation

A Boeing/Teaching Channel Partnership

DESIGN A QUIETER CABIN Teacher Handbook



TeachingChannel®

Design a Quieter Cabin

Day 10: Presentations

Grade Level	Early Middle School (Grade 6)
Lesson Length	One 50-minute session



Lesson Overview

In this lesson, students share their final products with the class. They draw three iterations of their design on chart paper and explain the evolution of their product along with their average test results from each trial.



Connecting to the Next Generation Science Standards

On Day 10, students demonstrate understanding of the performance expectations and three dimensions developed throughout the entire module. This lesson serves as a performance assessment in which all of the performance expectations and dimensions are addressed in the final presentation. Refer to the performance expectations, disciplinary core ideas, science and engineering practices, and crosscutting concepts referenced in this module's front matter.



Basic Teacher Preparation

This final lesson gives the teams an opportunity to share what they have learned throughout the module. It also provides the students with an opportunity to learn from each other as well as discuss various approaches to the same solution. As with previous lessons, preparation of materials needs to be done prior to class. Refer to the **Materials List** for necessary components and preparation guidelines.

Consider inviting other classes, parents, past volunteers, or relevant community members to hear students' presentations.

Required Preparation	Links/Additional Information
<input type="checkbox"/> Gather or purchase the required materials for the lesson	Refer to the Materials List below
<input type="checkbox"/> Review suggested teacher preparation resources	Refer to the Suggested Teacher Resources at the end of this lesson



Materials List

Item	Description/Additional Information	Quantity	Where to Locate/Buy
Large sheets of drawing paper, dry erase board, or blackboard	Each design team draws three iterations of their designs		Available in most schools, or buy at office supply store
Markers or chalk		Set(s) for class to share	Available in most schools, or buy at office supply store

Day 10: Presentations



Design Work: Team Preparation (25 minutes)

Each team draws and labels at least three iterations of their designs. Instruct the students that the drawings must include measurements, dimensions, total cost for the design, and average test results. All drawings must also include justifications and explanations that incorporate science ideas developed throughout the module.

Remind students that the drawings must be detailed enough that another team could build their design from their blueprint. Each team must prepare to discuss the evolution of their design and the reasoning behind their design modifications in front of the class. Teams use their drawings as a reference during their presentations.



Design Work: Team Presentation (25 minutes)

Each team gives a 2- to 3-minute presentation. Provide 2 minutes for classmates to ask questions as well as provide peer feedback.



Assessment

Use the final presentation as a summative assessment for the unit. A **Presentation Rubric** can be found in **Appendix C**.



Community Connections

Have students ask an adult family member if they give presentations as part of their job. If the family member does give presentations, have students ask them to share ways in which they prepare for a presentation and how they make their presentation engaging. Take a few minutes at the beginning of class to have students share their family member's presentation ideas with the entire class.

Consider inviting community members to the presentations.



Suggested Teacher Resources

Meeting the Needs of All Learners	Design a Quieter Cabin Teacher Handbook, Appendix B
Presentation Rubric	Design a Quieter Cabin Teacher Handbook, Appendix C