NATIONAL GEOGRAPHIC

RESOURCE LIBRARY I ACTIVITY : 50 MINS

Sharing and Evaluating Solutions

Students pitch their solutions to the class and outside audience members to help protect an endangered species. They receive feedback and questions about their choices and engage as audience members for other presentations. Students also submit their final grant proposals for evaluation.

GRADES

6, 7, 8

SUBJECTS

Biology, Ecology, Conservation

CONTENTS

3 PDFs

OVERVIEW

Students pitch their solutions to the class and outside audience members to help protect an endangered species. They receive feedback and questions about their choices and engage as audience members for other presentations. Students also submit their final grant proposals for evaluation.

For the complete activity with media resources, visit:
http://www.nationalgeographic.org/activity/sharing-and-evaluating-solutions/

In collaboration with

educurious
learning that connects

DIRECTIONS

This activity is part of the Extinction Stinks! unit.

1. Introduce presentations, collect grant proposals, and provide context to audience members.

- Welcome students and audience members to presentation day!
- Create an order for presentations so students know when they will be delivering their pitches.
- Collect students' final grant proposals before presentations begin, if you have not done so already.
- Inform students that while other groups are presenting, they will need to listen attentively to assess one another's work. Students and other audience members should fill out the *Audience Feedback Form* to provide feedback to each group.

2. Students deliver final pitches and take any audience questions.

- Direct students to deliver their final pitches to the audience.
- At the end of each presentation, allow time for audience members to ask questions.
- If you have guest audience members, this is also a great time for them to deliver feedback in a timely manner in a way that is both positive and constructive.

3. The class debriefs the project and students complete a personal reflection.

- After the last presentation, distribute the *Extinction Stinks! Final Reflection Form* to students. Have them complete them individually.
- At a later date, share some of the major takeaways from students' reflections on the unit's overall structure and ask if students have other feedback about the project experience. This allows for feedback to be anonymous and for students to build on each other's responses as a group.

Tip

Step 2: Having a fun routine to start and end student presentations can help them stay on track and cue students to attend to the students speaking. Try having students say a beginning chant like "Lights, Camera, Action!" in chorus to indicate that the next presentation is starting, and end each presentation with audience applause to show appreciation and indicate that it is complete.

Rubric

Use students' presentations and grant proposals to evaluate their understanding of the major concepts of the unit. Evaluate student work using the *Project and Pitch Rubric* introduced in the *Helping the Sumatran Rhino* activity. In addition, audience feedback forms and student evaluations could further inform your final assessment of students' learning.

Extending the Learning

Use the momentum from this project to continue with classroom action. Students can research local endangered species or continue to work with their target species and organize an event to raise awareness about threats to its survival. Students could also write letters to legislators in an area where their species is affected, organize a fundraising event, or create art that tells the story of their target organism.

OBJECTIVES

Subjects & Disciplines

Biology

- Ecology
- Conservation

Learning Objectives

Students will:

- Deliver a short presentation outlining their solution to protecting their target species.
- Listen and evaluate other students' presentations for quality of content and efficacy of planned solutions.
- Reflect on their learning during the Extinction Stinks! unit.

Teaching Approach

- Project-based learning

Teaching Methods

Skills Summary

This activity targets the following skills:

- 21st Century Themes
  - Environmental Literacy
  - Global Awareness
- Critical Thinking Skills
  - Analyzing
  - Creating
  - Evaluating
  - Remembering
- Science and Engineering Practices
  - Engaging in argument from evidence
  - Obtaining, evaluating, and communicating information

National Standards, Principles, and Practices

COMMON CORE STATE STANDARDS FOR ENGLISH LANGUAGE ARTS & LITERACY

• **CCSS.ELA-LITERACY.SL.7.1.A:**
Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
• **CCSS.ELA-LITERACY.SL.7.4:**
Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.
• **CCSS.ELA-LITERACY.SL.7.5:**
Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.
• **CCSS.ELA-LITERACY.SL.7.6:**
Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grade 7 Language standards 1 and 3 here for specific expectations.)

NEXT GENERATION SCIENCE STANDARDS

• **Crosscutting Concept 2:**
Cause and Effect
• **ETS1.B: Developing Possible Solutions:**
There are systematic processes for evaluating solutions with respect to how well they meet the criteria and constraints of a problem.
• **MS. Interdependent Relationships in Ecosystems:**
MS-LS2-5. Evaluate competing design solutions for maintaining biodiversity and ecosystem services.
• **Science and Engineering Practice 7:**
Engaging in argument from evidence

Preparation

What You'll Need

MATERIALS YOU PROVIDE

- Copies of handout[s]

REQUIRED TECHNOLOGY

- Internet Access: Optional
- Tech Setup: 1 computer per classroom, Projector

PHYSICAL SPACE

- Classroom

SETUP

Reach out to local conservation groups or environmental scientists who might make strong authentic audience members for your students' presentations. Local college or university professors and students may be interested in hearing about students' work and providing a unique perspective on the issues addressed in the presentations.

Make the final presentations fun and engaging for students and audience members. Celebrate the completion of the *Extinction Stinks!* unit.

GROUPING

- Cross-age teaching
- Large-group learning

RESOURCES PROVIDED: HANDOUTS & WORKSHEETS

- Audience Feedback
- Final Reflection
- Proposal and Pitch Rubric

BACKGROUND & VOCABULARY

Background Information

Presentation day can be an exciting time for a long-term project. Having an audience that includes at least a few outside adults can be one way to engage students' desires to perform well and help highlight the importance of their hard work. Consider bringing in outside experts or other teachers/adults on presentation day to increase students' investment in preparing their final pitches.

Prior Knowledge

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Recommended Prior Activities

- None

Vocabulary

TermPart of SpeechDefinition

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