Introducing De-Extinction

Learning Objectives

By the end of this lesson, students will be able to:

- Explain what de-extinction is and why it matters.
- Identify Colossal's mission and current projects (mammoth, thylacine, dodo, dire wolf).
- Understand how de-extinction science can drive conservation innovation.
- Think critically about the potential benefits and challenges of de-extinction.

Key Takeaways

- De-extinction is the process of either bringing back extinct species (or creating proxy species) using biotechnology like CRISPR gene editing.
- Colossal's mission is not just about "resurrecting" species it's about using cutting-edge science to restore ecosystems and avoid future extinctions.
- De-extinction efforts have already led to valuable scientific advancements.

Activities

Activity 1: Classroom Discussion

- a. "If you could bring back any extinct species, which would you choose and why?"
- b. Share with a partner & ask followup questions:
 - i. "Why would they want to bring it back?"
 - ii. "What role do you think it would have played in its ecosystem?"
 - iii. "Would it have an ecosystem on our modern planet that it could survive in? Or would it lead to any type of power imbalance?"







Activities

Activity 2: Colossal Video & Viewing Guide (<10 Minutes)

 a. After the video, students can wrap up their discussion questions - after this is a good time to have a classroom discussion about the concept of de-extinction.

Extension Activity A: Endangered Animal Infographic

While the primary lesson centers on the concept of "de-extinction" and its potential contributions to current conservation efforts, this extension activity shifts students' attention to endangered species that still exist today.

A paper-and-pencil template is provided below and is recommended for this activity, as the resulting infographics can be displayed in the hallway to celebrate Earth Day. A digital template is also available through Canva for those who prefer a virtual option.

Offering the extension as a digital slides project allows students to conduct more in-depth research and provides flexibility to extend the activity over a longer period if desired.

For 8th-grade classrooms, the paper-and-pencil method is often more effective in keeping students on task and results in impactful visual displays for school hallways.

The goal of this extension is to inspire greater awareness and appreciation of Earth's biodiversity in celebration of Earth Day.







Extension Activity B: Group Up & Debate

This activity serves as a reminder that conservationists must often allocate limited resources among many endangered species. Some species receive more attention and resources than others due to factors such as tourism appeal, scientific interest, or charismatic traits.

Students should form groups (in sizes appropriate for the classroom setting) and work together to rank the animals they researched in order of how they believe conservation efforts should be prioritized.

This group discussion provides a valuable opportunity for critical thinking, debate, and deeper engagement with real-world conservation challenges.

Links

Link to Instructional Slides
Link to Canva Template
Link to Viewing Guide





