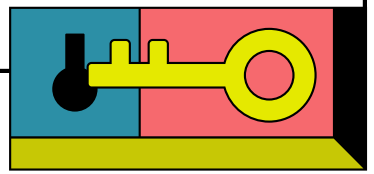
DEBATING THE ECOLOGICAL COSTS & BENEFITS OF DAMS

OBJECTIVE

To enable students to apply core ecological concepts – such as ecosystem dynamics, biodiversity, habitat fragmentation, and nutrient cycling – to a real-world scenario by analyzing the biological impacts of dams from multiple stakeholder viewpoints, ultimately deepening their understanding of human influence on riverine ecosystems and the complexities of environmental management.

INSTRUCTIONS FOR THE TEACHER

1. Begin by introducing the “Local Dam Project” and its ethical considerations. Briefly discuss some of the ethical questions surrounding this technology, such as the potential risks, environmental impacts, and the moral responsibility of scientists.
2. Divide the class into groups and randomly assign each group a specific stakeholder role, guiding them to create initial "Stakeholder Briefs."
3. Clearly outline the debate rounds (Opening Statements, Rebuttals, Open Forum, Mitigation/Alternatives, Closing Statements), review time limits, and explain the assessment rubric.
4. Provide dedicated time for groups to research their roles, develop arguments, gather evidence, and prepare rebuttals and questions using the graphic organizer.
5. Arrange the classroom for the public hearing, strictly manage time for each debate round, and ensure respectful dialogue while guiding the discussion to cover all key ecological impacts.
6. Facilitate a whole-class discussion where students step out of character to reflect on the arguments, different perspectives, and the ethical/ecological complexities of the issue.
7. Utilize the provided rubric to evaluate students' research, argumentation, collaboration, presentation skills, and individual reflection.



"The key to a successful debate is not in proving your opponent wrong, but in convincing your audience that you are right."