



Maintaining a Balance (Learning Experience #2) Opportunities for Student Assessment



Opportunities for ongoing formative assessment are embedded throughout the learning experience in questions that spark class discussions. Student worksheets, journal entries and class presentations also serve as formative assessments as the students work through the learning experience. The summative assessment for this learning experience is the written version and oral presentation about the impact of an invasive species in their region and recommended control mechanisms to halt/ slow the species' range. Each student in the team should be involved in the research, writing and presentation. Finally, all students should be able to write an answer to the lesson essential question by the end of this learning experience. Sharing the rubric with the students when you introduce the learning experience will help them meet your expectations for quality work.

Suggested Student Rubric for Invasive Species Student Presentations

Criteria	N/A	Missing	Below Expectations	Meets Expectations	Exceeds Expectations
Evidence of research					
Detailed information about the exotic species					
Detailed information about impact on habitat					
Explanation of population controls					
Team suggestion for control					
Inclusion of all team members					
Creativity shown in presentation					

Student Science Journals

Journaling is an important part of a practicing scientist's day to day work. Student-scientists should reflect, write and draw in their journals or notebooks as they answer questions and plan next steps in the problem solving process. Entries should be labeled with names of team contributors, dates and where the team is in the planning process. An occasional look at journals provides an informal assessment of students' progress and their understanding of the content.



Suggested Student Journal Rubric, *Maintaining a Balance* (Learning Experience #2)

Criteria	N/A	Missing	Below Expectations	Meets Expectations	Exceeds Expectations
<i>Maintaining a Balance</i> Lesson Essential Question (LE#2)					
Descriptions of models					
Idea for testing answer to animal behavior question					
Reflection on need for public understanding of the impact an exotic species has on an ecosystem					

Cross Curricular Connections

Literacy Connections

This lesson may be completed in part as an English assignment. Students are asked to research characteristics of the northern snakehead fish, its life history, and its impact on the habitats where it has been discovered. After they complete their research into exotic species in their own backyards, they are asked to write a newspaper article and develop a presentation for their classmates. An additional literacy assignment could be an essay about introduction of exotics by careless humans.

Social Studies Connections

Invasions of exotic species are usually the result of human migration and trade from one part of the earth to another. Your students will find many examples of plant and animal introductions as settlers moved and brought familiar crops and livestock with them. While these introductions were deliberate, there have been many more that have been accidental as species hitchhiked in human and other animal hosts, holds of ships, packing crates, and soil around tree roots. Research into the changes brought to the established ecosystems of the New World by invasive species from the Old World will give students a new way of looking at the settlement of their region by colonists from Europe.