



Lesson 11: Conclusion

What have we learned about how our local system operates? How can this information transfer to other ecosystems?

Grade Level: Middle School 6-8

Essential Question:

What have we learned about how our local system operates?

Objectives:

At the end of this lesson, students will:

- *Understand* that organisms, and populations of organisms, are dependent on their environmental interactions both with other living things and with nonliving factors.
- *Present* their findings about their individual organism.
- *Collaborate* in a service project that is student driven and reflects what they have learned from this unit.

Assessment opportunities:

At the end of this lesson, you will be able to assess students through:

- Their individual presentations on their organism.
- The changes they make to their original poster showing a direct increase in knowledge.
- Participation in a service project.

Background Information

This sequence of lessons is an opportunity to celebrate all that the students have learned and gained through this unit as well as give back to the local community. Start thinking of a service project before hand to have connections and options available for students.

Performance Expectations: Next Generation Science Standards:

MS-LS2-1.

Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

MS-LS2-2.

Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.

MS-LS2-4

Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

MS-LS2-5.

Evaluate competing design solutions for maintaining biodiversity and ecosystem services.

<http://www.nextgenscience.org/msls2-ecosystems-interactions-energy-dynamics>

Key Understandings

Organisms, and populations of organisms, are dependent on their environmental interactions both with other living things and with nonliving factors.



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And Service project
Field guide creation and revisiting original posters

Materials:

- Original posters
- Poster paper
- Pens
- Journal making materials

Part 4: Compile all of the student's species accounts into a large field guide that can be on display in class.

Time Commitment:

3-4 45-class periods

Preparation:

- Have the original poster available for students.
- Plan a field trip to local area for restoration etc.

Directions:

Part 1: Have students compile their species account entries and present their completed findings.

Part 2: Revisit Lesson 1.

Distribute the original ecosystem posters to the students and have them reflect on the work they originally did. Ask them to make modifications to the old poster (or start over on new paper) to reflect their increased knowledge of the ecosystem.

Part 3: Review data collected from the Citizen Science survey. Identify a possible service project suggested by the data, such as a habitat restoration project, an education project with a targeted audience (such as an elementary class, the school board or a conservation group), or any identified project that would benefit the biodiversity of the local area.

