



Otters, Otters Everywhere (Learning Experience #1) Student Procedures



Lesson Essential Question: How do humans contribute to the loss of a species from an ecosystem?

Note: You will work in a project team of three or four students. Team answers to the questions below should be recorded in your individual journal. Each team should be ready to contribute to a class discussion on each topic.

Procedures

1. Copy the essential question for this learning experience into your journal and answer it. Leave space below your answer for additional ideas after you have completed the learning experience.
2. View a video of river otters at play, swimming, eating, etc. Write a reflection in your journal about the otters and how you feel about them. Do you like them? Would you like to see some otters in the wild?
3. Look at the maps of the range of the river otters with your project team. Which one shows the range of the otters in the early 1700's and which one shows the range in the 1970's? Why do you think so? Note your answers and your reasoning in your journal.
4. Answer the following questions in your journal:
 - a. Have you ever seen a river otter? If so, where?
 - b. Why do most people see river otters in a zoo or wildlife park instead of in the wild?
5. With your team, complete the graphic organizer and questions on *You Otter be an Otter* (Student Sheet #1). List all of your sources of information including any videos that you view.





6. Have someone from your group share at least one river otter characteristic with the rest of the class. Discuss how that characteristic makes otters ideally suited to live and reproduce in streams and ponds of the Chesapeake Bay watershed, or how that characteristic may explain why otters have disappeared from much of their historic range.
7. Since otters occupy the top of their food chain, they are subject to biomagnification of toxins that are present in polluted waterways and bodies of water where they live. The learning activity in *More is not Always Better* (Student Sheet #2) will help you discover what this means and why it causes problems for the top predator in any food web. Write a reflection in your journal on the dangers that biomagnification of toxins pose to humans who consume top carnivores (i.e. game fish such as tuna, salmon and bass living in polluted waters).
8. As you complete *Exit Interview* (Student Sheet #3) you will discover the reasons why river otters disappeared from much of their historic range.