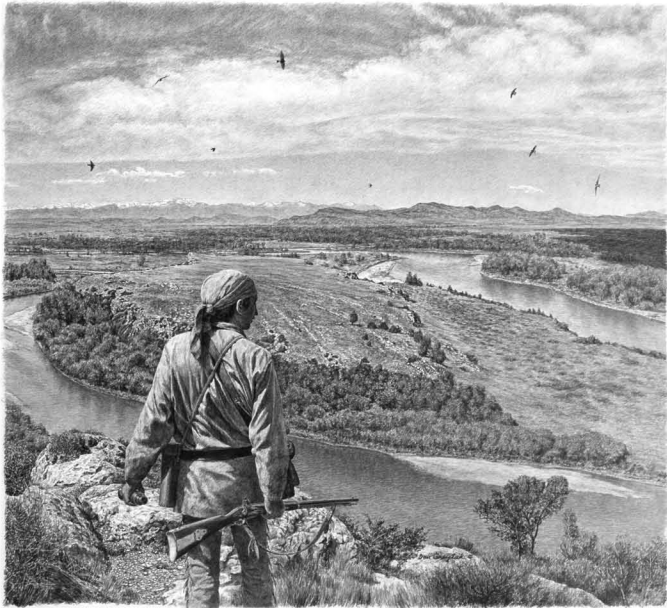


Changing Landscapes

This activity is directly tied to the second spread, pages 3 and 4, in the *What's In Your World?* publication located inside the back pocket of the activity tool kit.



*Have weeds always been here?
Has the landscape changed over time?
How did the weeds get here?*

Journey back to the time of Lewis and Clark and investigate how landscapes can change over time. In this lesson, students will use naturalist skills of drawing and mapping to explore landscapes from the past to the future.

Levels
Grades 4-8

Subjects - History, Science, Art, Language Arts

Skills - Discussing, Comparing and Contrasting, Mapping, Drawing

Concepts
Interactions of living things and environments;
observation; inquiry process;
interactions among technology, science and society

Objectives
Students will learn that landscapes change over time at different rates. Students will learn that many factors influence the changing of landscapes. Students will examine Lewis and Clark perspectives of the landscapes to create drawings and understand how landscapes can change. Students create maps to demonstrate the effects of noxious weeds over time.

Materials (20 student class-size)
What's in Your World? booklets (pp. 3-4) - 1 per student
Lewis and Clark journals
journal or notebook -1 per student
large pieces of paper (~11"x 17") - 1 per student
pencil - 1 per student

Time Considerations
Preparation - 5 minutes
Activity - 80 minutes

Lesson Overview

- Landscape of Lewis and Clark - Discussion and drawing (40 minutes)
- Present and Future Landscapes Map (40 minutes)

Background

Most noxious weeds in North America came from other parts of the world, mostly Europe, Asia, and the Middle East. Many came here 100 years ago or more as stowaways in shipments of grain, hidden in a ship's ballast, or were introduced as ornamental plants. For these invading weeds, North America is the "land of opportunity" because they've left their enemies behind. Most of our native animals and bugs aren't interested in eating the newcomers, and our native plants fall behind in the race for food, water, and sunlight. So these weeds sprout and grow like....well, weeds!

More than 4,378 non-native plant species have been introduced into the United States. About 50 of these are considered major ecological and economic pests (noxious weeds.) In the American West, the 16 worst noxious weeds infest more than 100 million acres of land.

You may not notice it, but the place where you live is always changing. Sometimes the changes are small--a tree branch falls down in a windstorm. Sometimes the changes are big--a wildfire scorches an entire forest. Over a long time--years or even hundreds of years--these changes form patterns. Chances are, the place you live has many more homes, buildings, roads and parking lots than it did just 20 years ago. Look around you and imagine the landscape as it might have been 50 years ago, 100 years ago, or before settlers cleared the land.

*Was there a forest where your school now stands?
Or did prairie grasslands stretch to the horizon?*