Using Lewis and Clark in the Science Curriculum, with References

Paleontology

Jefferson hoped that Lewis might find living examples of animals for which only fossil bones had been found at the time, such as the giant ground sloth, *Megalonyx* (Animals p.7; Cutright pp. 5-6, 26). The concept of extinction, so fundamental to modern biology, hadn’t been developed yet, so Jefferson’s hopes weren’t unreasonable.

This topic provides a great opportunity to discuss the history of science and scientific ideas; children would be amazed to discover that at the time Lewis and Clark departed, no one knew anything about dinosaurs!

Geology

Jefferson expected Lewis to find an easy water route across the country—this was the primary purpose of the expedition (Then and Now, pp. 6-7). European Americans at the time had no concept of the extent of the Rocky Mountains; they thought these mountains would be like the single range on rounded peaks of the Appalachian chain in the eastern United States so that boats could travel easily to the source of the Missouri River, then goods could be transported a short distance over the mountains and loaded on boats on the other side to travel to the Columbia River and then to the Pacific Ocean, where they could be shipped to Asian countries.

This is another topic that shows how far science has come in 200 years—plate tectonics tells us how the Rockies came about, for example.

Biology

The Lewis and Clark expedition abounds in topics relating to plants and animals. A few ideas to explore are:

1. Animal behavior--Lewis’s journals contain many passages describing the behavior of animals, and some show how the animals have changed their behavior as European Americans persecuted them. Coyotes on the prairies, for example, used to live in packs (Animals pp. 44-45); now they are more often solitary. Grizzly bears once lived along the Missouri River in the open (Animals pp. 46-57); now they rarely come out of the forests.
2. Scientific classification--Lewis struggled to figure out the relationship of what we now call the pronghorn to other animals (Animals p. 20). This is a topic that can lead to a discussion of how scientists determine the biological relationships of animals and is related to the next suggested topic.

3. Scientific names--Lewis knew of the Linnean system of classification (Cutright p. 31, pp. 385-390; Animals p. 104) but didn’t use it to name his “discoveries.” If he had, he would have gotten scientific credit for his findings, but American scientists didn’t totally accept the Linnean system at the time. This topic has many possibilities--how do scientists name organisms? What is the Linnean system? What is the current “family tree” of the living world?

4. Geographical distribution of living things--Lewis not only found “new” species, he also expanded the range of previously known species, such as the magpie (Animals, pp. 23-24) and a number of plants (Plants, pp. 15-17). This topic can be combined with geography--e.g. Many species of plants and animals have a circumpolar distribution and are found throughout the Northern Hemisphere (grizzly, or brown, bear; red fox; gray wolf; for example).

5. Medicines and plants--about a third of medical drugs come from plants, and traditional societies use plants for medicinal purposes. Jefferson was very interested in how Native Americans employed plants, and Lewis was well qualified for being aware of medicinal uses, as his mother was an herbalist (many parts of Plants are relevant here). This topic can expand in a number of directions--curing disease, chemistry of plants, native cultures, etc.

These are just a few suggestions; there’s no end to the possibilities!

Resources

Books Referenced Above
Patent, Dorothy Hinshaw, “Plants on the Train with Lewis and Clark,” Spring, 2003 [Plants]

Other Useful Books on Lewis & Clark and Science

Prairie Related Books by Dorothy Hinshaw Patent

“Prairie Dogs,” Clarion, 1993
“Prairies,” Holiday House, 1996
“Saving the Prairie Bandit,” Grolier, 2001 (about the black-footed ferret)

Other resources

Index to all Lewis and Clark websites: www.lcarchive.org/fulllist.html

To download informational texts about various subjects, including Native Americans, and a variety of lesson plans, from the National Council of the Lewis and Clark Bicentennial, visit lewisandclark200.org.
The lesson plans in this curriculum unit take an in-depth look at the history of U.S. expansion and Indian policy, and present the voices and perspectives of Native Americans on the Lewis and Clark expedition. These materials offer an alternative viewpoint on an often-glorified era, and call attention to the dangers of ethnocentric and one-sided versions of history. In South Dakota, a group re-enacting the Lewis and Clark expedition was confronted by American Indian leaders who questioned the legacy of the journey and its effects.

“All [they] did by coming up into our territory is open old wou These Lewis and Clark hands-on activities are a great addition to any American History curriculum or unit study. The expedition will become memorable for kids with the hands-on lessons. #homeschool #lewisandclark #homeschoolhistory. Find this Pin and more on Elementary Homeschool Curriculum and Activities by The Organized Homeschooler | Homeschool Tips. Tags. American History Lessons.Â This is a fun activity to do in the classroom at the end of a matter unit. It connects and reviews these concepts: solid, liquid, gas, heterogeneous mixtures, homogenous mixture, chemical energy, viscosity, physical change, and chemical change. Enjoy! Sheryl Spears Fifth Grade Science. Lewis would use the navigational instruments to plot and record his geographic positions while on the journey. Lewis also received some tutoring in identifying plants, as one of the duties assigned to him by Jefferson would be to record the trees and plants growing in the west. Likewise, Lewis was taught some zoology to help him accurately describe and classify any previously unknown animal species which were rumored to roam the great plains and mountains of the west.Â Lewis picked his former colleague in the US Army, William Clark, to help command the expedition because of Clark's known reputation as an Indian fighter. Yet Lewis had also been cautioned not to engage in combat with Indians, but to withdraw if violently challenged. Careful thought was given to the size of the expedition.