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# Uncovering Animals

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## Grade Two



### OBJECTIVES

Students will explain the reason why Lewis and Clark recorded many unfamiliar species of animals in their journals during their expedition. Students will locate information, construct a scientific diagram, and compose a journal entry based on an animal encountered by Lewis and Clark.



### CLASS TIME

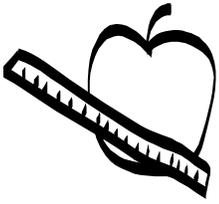
Four 30- to 45-minute sessions



### NATIONAL STANDARDS

This lesson plan reflects some of the national standards of learning as defined by the National Council for the Social Studies (NCSS), the National Research Council, and the National Council for Teachers of English (NCTE). These standards are listed below:

- Social Studies: Time, Continuity, and Change
- Social Studies: People, Places, and Environments
- Social Studies: Science, Technology, and Society
- Science: Unifying Concepts and Processes in Science
- Science: Science as Inquiry
- Science: Physical Science
- Science: Life Science
- Language Arts: Students read a wide range of print and non-print texts to build an understanding of texts, of themselves, and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment. Among these texts are fiction and nonfiction, classic and contemporary works.
- Language Arts: Students employ a wide range of strategies as they write and use different writing process elements to communicate effectively with a variety of audiences for different purposes.
- Language Arts: Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources (e.g., print and non-print texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience.
- Language Arts: Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.
- Language Arts: Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).



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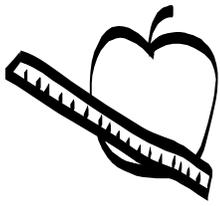
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## MATERIALS

- 1 overhead projector
- 1 overhead transparency of each of the following:
  - “Louisiana Territory” map from the Resource Guide
  - Keelboat Nickel reverse from the Resource Guide
  - “Animal Journal” page
- 1 overhead marker (optional)
- 1 copy of an age-appropriate text that provides basic information about the Lewis and Clark Expedition, such as:
  - *On the Trail of Lewis and Clark* by Peter Lourie
  - *The Great Expedition of Lewis and Clark* by Judith Edwards
  - *How We Crossed the West: The Adventures of Lewis and Clark* by Rosalyn Schanzer
  - *A Picture Book of Lewis and Clark* by David Adler
  - *Lewis and Clark: A Prairie Dog for the President* by Shirley Ray Redmond
- Copies of each of the following:
  - Keelboat Nickel reverse from the Resource Guide
  - “Animal Discoveries” list
  - “Animal Journal” page
- Multiple copies of age-appropriate texts that provide basic information about the animals studied on the Lewis and Clark Expedition, such as:
  - *Animals on the Trail with Lewis and Clark* by Dorothy Hinshaw Patent
  - *Lewis and Clark Journey: Animal ABC Book* by Everett C. Albers
  - *Going Along with Lewis and Clark* by Barbara Fifer
- Chart paper
- Markers
- 1 picture of a prairie dog (optional)
- A reserved computer lab with Internet access
- Copies of appropriate print resources that provide accurate information about the animals found on Lewis and Clark’s journey, such as encyclopedias, reference books, magazines, and the Lewis and Clark journals.
- 1 stapler



# Uncovering Animals



## PREPARATIONS

- Make one overhead transparency of each of the following:
  - “Louisiana Territory” map from the Resource Guide.
  - Keelboat Nickel reverse from the Resource Guide.
  - “Animal Journal” page.
- Locate an appropriate text that provides basic information about the Lewis and Clark Expedition (see examples under “Materials”).
- Make copies of each of the following:
  - Keelboat Nickel reverse from the Resource Guide (1 per student).
  - “Animal Discoveries” list.
  - “Animal Journal” page (1 per student).
- Locate multiple copies of appropriate texts that provide basic information about the animals studied on the Lewis and Clark Expedition (see examples under “Materials”).
- Locate a picture of a prairie dog (optional).
- Arrange to use the school computer lab for three class sessions.
- Bookmark appropriate Internet sites.
- Locate copies of appropriate print resources that provide accurate information about the animals found on Lewis and Clark’s journey, such as encyclopedias, reference books, magazines, and the Lewis and Clark journals.



## GROUPINGS

- Whole group
- Pairs or small groups
- Independent work



## TERMS AND CONCEPTS

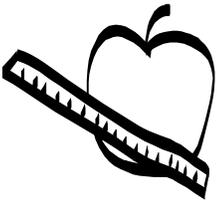
Obverse (heads)	Reverse (tails)	Lewis and Clark	Louisiana Purchase
Corps of Discovery	Exploration	Thomas Jefferson	Keelboat Nickel
Observations	Diagram	Journal	



## BACKGROUND KNOWLEDGE

Students should have a basic knowledge of:

- Circulating coins
- Explorers
- Plants and animals



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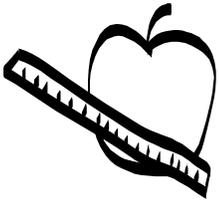
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## STEPS

### Session 1

1. Display the overhead transparency of the “Louisiana Territory” map. Explain that our country was not always the same shape that it is today. Show the students the area of the country that existed before the Louisiana Purchase.
2. Explain to the students that, when our country was very young, President Jefferson bought some new land for our country. He then sent a team of explorers, led by two men named Meriwether Lewis and William Clark, to explore this new land. On the map, show the students the area that Lewis and Clark explored. Note the territory’s position in relation to your school’s location.
3. Engage the students in a discussion about the meaning of the term “explorer,” directing them to realize that an explorer is a person who goes to a new place to find new things. Have students brainstorm a list of other explorers with whom they may be familiar, such as Christopher Columbus.
4. On the map, follow Lewis and Clark’s route with your finger or an overhead marker, and point out that the explorers traveled over both land and water. Ask students to guess what modes of transportation Lewis and Clark may have used along their journey.
5. Explain that one of President Thomas Jefferson’s reasons for sending Lewis and Clark on this adventure was for them to find a passage to the Pacific Ocean from the eastern states. Another important mission for this journey was to record information about the plants, animals, and people that they came across in this uncharted area of our country.
6. Explain that, starting in 2004 and continuing through 2005, our country is changing its nickels to tell the story of Lewis and Clark and their exploration of our western lands 200 years ago. Display the Keelboat Nickel overhead transparency.
7. Explain that the boat portrayed on the nickel is a keelboat and was one of the means of transportation Lewis and Clark used on their journey. Have students discuss how the keelboat might have helped Lewis and Clark in their mission to observe and record information about animals.
8. Introduce students to the selected text. As a group, preview the text and illustrations to generate predictions about what is occurring in different parts of the book.
9. Read the story aloud to the class. Ask students to take note of the key individuals and events as well as how the explorers recorded their journey, particularly their encounters with animals.
10. Lead a class discussion on the importance of the journals that Lewis and Clark kept during their expedition, particularly their documentation of animals.
11. Distribute a copy of the Keelboat Nickel reverse to each student. Direct them to draw a speech bubble for Lewis and one for Clark. Direct the students to write something inside each bubble that the men might have said about the animals that they observed during their journey.



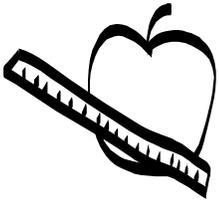
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# Uncovering Animals

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## Session 2

1. Review the speech bubbles from the previous session. As you discuss the speech bubbles, discuss what led the student to write their individual comments. Ask the students to explain why observing animals would have been an important aspect of Lewis and Clark's expedition.
2. Divide the students into pairs or small groups and give each group at least one book that provides basic information about the animals studied on the Lewis and Clark Expedition.
3. Direct students to look through the books to find and record a list of animals that the explorers had never seen before their journey.
4. Regroup and discuss as a class the animals that were found, recording each response on chart paper. Label this list "New Animals."
5. After listing the students' findings, add some additional animals to the list, using the "Animal Discoveries" list for reference.
6. Lead a class discussion on how Lewis and Clark must have felt upon seeing these animals they had never seen before. Discuss what Lewis and Clark might have wanted to know about these animals. Guide students to respond that Lewis and Clark probably wanted to make observations about the height, weight, color, and characteristics of each plant or animal, how it was used by the American Indians, and the type of environment in which each lived. Record all responses on chart paper and label this list "Observations."
7. Ask the students to discuss how Lewis and Clark might have recorded their observations. Guide students to respond that the explorers created detailed drawings and wrote thorough descriptions of the plants and animals they encountered in their journals. In addition, samples of plants and animals were collected and brought back to Thomas Jefferson. Record all responses on chart paper and label this list "Methods of Observation."
8. Explain to the students that, while Lewis and Clark were not the first to discover these animals for the first time (since the American Indians had been there before the them), the journals, which contained pictures and descriptions of many animals, were still very important to the explorers. The people back East had never seen many of these species of animal before and the only way to learn about them was through the descriptions and illustrations in Lewis and Clark's journals.
9. As an example of the importance of the journals, relate the following story. At one point while traveling the upper Missouri river, one of the boats nearly tipped over. Several important scientific instruments and the journals fell out of the boat. While the crew paddled desperately to the shore to save the boat, Sacagawea retrieved the journals and instruments from the strong waters of the Missouri river.
10. As a hook for student research, relay the following story. Ask students if they have ever heard of or seen a prairie dog. If necessary, show a picture of the animal. Explain that Lewis and Clark wanted to learn more about this animal because they had never seen it



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# Uncovering Animals

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before their journey. In order to get close to the prairie dogs, who burrow in the ground, Lewis and Clark tried to flush them out of their burrows by pouring water down into the holes. It took a lot of water because the holes were deep, but finally, one came out and Lewis and Clark were able to catch it in order to observe it. In the journals, they made notes about the prairie dogs' ears, tail, toenails, and fur, and the noises it made.

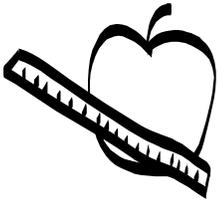
11. Explain that the students will be creating their own animal journals independently based on the animals that Lewis and Clark studied during their expedition.
12. Display the “Animal Journal” overhead transparency as a template. Using the example of a prairie dog, model the researching and writing of a description and the drawing of a diagram. Write the description as if it were the first time you had ever seen this animal, and as if you were describing the animal to people who had never seen the animal either. Also, be sure to compare the prairie dog to other more familiar animals, as Lewis and Clark did in their journals.
13. Ask each student to select one of the animals that Lewis and Clark observed from the “Animal Discoveries” list.
14. Distribute an “Animal Journal” sheet to each student as a template for their research and explain that students will research their selected animal during the next session.

### Session 3

1. Visit the computer lab with your students or provide significant print resources such as books, magazines, encyclopedias, and the Lewis and Clark journals, to facilitate their research.
2. Allow students an appropriate amount of time to find information on their selected animals. As students find information, direct them to record it on the back of their journal page or on a separate sheet of paper.

### Session 4

1. Have students review their research on the back of their “Animal Journal” pages and circle the five most important facts that they learned about their selected animal. Direct the students to write a journal entry based on their independent research as if they were Lewis or Clark, seeing this animal for the first time. They should carefully describe their animal and incorporate the five facts from their research. Instruct students to include a detailed illustration of the animal.
2. After completing the journal entries, give the students time to share their writing and diagrams with the whole class.
3. Have students staple together their Keelboat Nickel page with speech bubbles from the first session and their journal entries and turn them in for assessment.



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## ASSESSMENT

- Evaluate the journal entries, diagrams, and speech bubbles for understanding of the researched animal and Lewis and Clark’s perspective.
- Take anecdotal notes about the students’ abilities to discuss the importance of the Lewis and Clark expedition, the meaning of the images on the Keelboat Nickel, and Lewis and Clark’s discovery and recording of new fauna.



## ENRICHMENT/EXTENSIONS

- Individually or in pairs, have students research other flora and fauna discovered by Lewis and Clark.
- Have students research and review first-person accounts of the expedition, including journals and specimens collected.
- Keep theme-related books about Lewis and Clark and the Louisiana Purchase in the classroom library so that children can read them at their leisure.



## DIFFERENTIATED LEARNING OPTIONS

- Allow students to dictate journal entries.
- Students may write journal entries or conduct research with a partner.
- Provide books about Lewis and Clark on a variety of levels.
- Display pictures with labels of all the key elements of the lesson (such as Meriwether Lewis, William Clark, keelboat, and nickel).



# Animal Discoveries

Lewis and Clark introduced more than 120 animals to science. These are the animals they noted.

## Fish

White sturgeon  
Goldeye  
Blue catfish  
Channel catfish  
Columbia river chub  
Mountain sucker  
Starry flounder  
Northern squawfish  
Cutthroat trout  
Steelhead trout  
Sauger  
Eulachon or candlefish

## Reptiles, Amphibians

Soft-shelled turtle  
Columbian toad  
Northern Pacific rattler  
Prairie Rattler  
Western hog-nose snake  
Pacific tree frog  
Pigmy horned toad  
Plains horned toad  
Bull snake  
Water terrapin  
Western frog  
Western fence lizard  
Western garter snake  
Northwestern garter snake  
California newt or warty salamander

## Birds

Western grebe  
White-fronted goose  
Lewis's woodpecker  
Ring-necked duck  
Oregon ruffed grouse  
Hutchins's goose  
Lesser Canada goose  
Montana horned owl  
Dusky horned owl  
Franklin's grouse  
Western willet  
Sage grouse

Pacific nighthawk  
Northern flicker  
Western common crow  
Northwestern crow  
American raven  
Black-headed jay  
Richardson's blue grouse  
Harris's woodpecker  
Cabanis's woodpecker  
Western pileated woodpecker  
Prairie horned lark  
Brewer's blackbird  
Pacific fulmar  
Pacific loon  
Pinon jay  
White-rumped shrike  
Glaucous-winged gull  
Western gull  
Bonaparte's gull  
Clark's nutcracker  
Long-billed curlew  
Whistling swan  
Mountain quail  
Columbian sharp-tailed grouse  
Prairie sharp-tailed grouse  
Oregon jay  
Double-crested cormorant  
Nuttall's poor-will  
Black-billed magpie  
Western tanager  
Red-necked grebe  
McCown's Longspur  
Broad-tailed hummingbird  
Pale goldfinch  
Forster's tern  
Least tern  
Western meadowlark  
Western winter wren  
Western mourning dove

## Mammals

Shiras's moose  
Pronghorn

Oregon pronghorn  
Mountain beaver or sewellel  
Short-tailed shrew  
Coyote  
Plains gray wolf  
Missouri beaver  
Roosevelt's elk  
Black-tailed prairie dog  
Mule deer or black-tailed deer  
Columbian black-tailed deer  
White-tailed deer  
Sea otter  
Yellow-haired porcupine  
Townsend's chipmunk  
Mountain lion, panther, or cougar  
White-tailed jack rabbit  
Oregon bobcat  
Northern bobcat  
Yellow-bellied marmot  
Striped skunk  
Long-tailed weasel  
Ermine  
Bushy-tailed wood rat or pack rat  
Eastern wood rat  
Mountain goat  
Audubon's mountain sheep  
Harbor seal  
Raccoon  
Townsend's mole  
Western gray squirrel  
Columbian ground squirrel  
Thirteen-lined ground squirrel  
Desert cottontail  
Douglas's squirrel or chickaree  
Richardson's red squirrel  
Western badger  
Pocket gopher  
Grizzly bear  
Great-tailed fox  
Swift fox

# Animal Journal

Animal's Description: \_\_\_\_\_  
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Animal's Name: \_\_\_\_\_