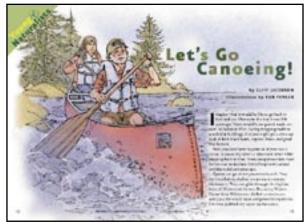
Teachers Guide

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"Let's Go Canoeing" **Multidisciplinary Classroom Activities**

Teachers guide for the Young Naturalists article "Let's Go Canoeing," by Cliff Jacobson. Illustrations by Ron Finger. Published in the May-June 2004 Volunteer, or visit www.dnr. state.mn.us/young_naturalists/canoeing.

Young Naturalists teachers guides are provided free of charge to classroom teachers, parents, and students. Each teachers guide contains a brief summary of the article, suggested independent reading levels, word count, materials list, *estimates of preparation and instructional* time, academic standards applications, preview strategies and study questions overview, adaptations for special needs students, assessment options, extension activities, Web resources, including



related articles available on the Volunteer Web site, copy-ready study questions with answer key, and a copy-ready vocabulary sheet. Users are encouraged to provide feedback through an online survey at www.dnr.state.mn.us/education/ teachers/activities/ynstudyguides/survey.html.

Summary

"Let's Go Canoeing!" gives the reader an easy-to-read introduction to the sport of canoeing. Good places to go canoeing, the right equipment, and some basic canoeing skills are described, with excellent supporting illustrations. The article concludes with comparisons of four different canoe designs as well as tips for finding out more about this popular Minnesota pastime.

Suggested reading levels:

Third grade through middle school

Total words: 2,002

Materials:

Paper, pencils, colored pencils, markers, crayons, pens, Minnesota history and related canoeing resources from your media center, canoe route maps available from DNR regional offices or online (see Web Resources).

Preparation time:

About one hour

Estimated instructional time:

Two 50-minute class periods (not including extensions)

Minnesota Academic Standards applications:

"Let's Go Canoeing!" may be applied at the mid-elementary through eighth grades to the following strands (I, II, III) and substrands (A–E):

I Reading and Literature

- A. Word Recognition, Analysis and Fluency
- B. Vocabulary Expansion
- C. Comprehension

II Writing

- A. Types of Writing
- B. Elements of Composition

- C. Spelling
- D. Research
- E. Handwriting and Word Processing

III Speaking, Listening and Viewing

- A. Speaking and Listening
- B. Media Literacy

Standards for science and social studies are currently in draft form and may be viewed on the Department of Education Web site (www. education.state.mn.us). Young Naturalists articles have proven to be excellent resources for interdisciplinary collaborations. When social studies and science standards are approved by the Legislature, we will highlight strands and substrands to which Young Naturalists articles might apply.

Preview

You may introduce this article in a variety of ways, including:

- 1. Preview vocabulary words using the overhead attached to this guide, or brainstorm canoeing-related words with the class. Teachers are advised to review the article for any words or phrases that students may be unfamiliar with. A large picture or drawing of a canoe and paddle with parts labeled might also be helpful in vocabulary preview.
- 2. The canoe has played a significant role in the history of Minnesota. American Indians and fur traders used the canoe as a primary means of transportation. You might relate the modern canoes discussed in the article to their birch bark predecessors. See resources from your media center.
- 3. Use the **KWL** strategy to find out what your students already know **(K)** about canoes and canoeing, what they would like **(W)** to learn, and

- eventually, what they learned **(L)** from the article and related materials. Display your **K** and **W** ideas on large pieces of tag board or paper. Add to your **L** list as you read and discuss the article.
- 4. Invite an experienced canoeist to visit your class to share the tale of a canoeing adventure.
- 5. Invite a local canoe dealer to bring a canoe to class and talk about different types of canoes and canoeing.

Study questions overview

Study questions parallel the story (the answer to the first question appears first in the article, followed by the second, and so on). This is an important organizational tool for students and should be emphasized before you begin working on the study questions. Preview the questions with your class before you read the article. You may wish to read the story aloud and complete the study questions in class or in small groups. The questions may be assigned as homework, depending on the reading ability of your students. Inclusion teachers may provide more direct support to special needs students (see Adaptations section).

Adaptations

Read aloud to special needs students. Abbreviate the study questions or highlight priority items to be completed first. If time allows, remaining items may be attempted. For example, items 3, 6, 7, 9, 11, and 12 will give students some basic knowledge of canoeing. Peer helpers, paraprofessionals, or adult volunteers may lend a hand with the study questions. With close teacher supervision, cooperative groups can also offer effective support to special needs students, especially for extension activities. Word banks of key vocabulary may be useful writing scaffolds. Stories may be dictated instead of written.

Assessment

You may use all or some of the study questions, combined with vocabulary, as a quiz. Other assessment ideas: (1) Ask students to draw a canoe, with the bow, stern, seats, decks, hull, gunwales, and thwarts labeled. (2) Ask students to write a short story about a river trip in a canoe, including important details from the "A Day on the River" section of the article. (3) Your students could create posters of habitats that are best explored by canoe, such as backwaters, shallow streams, and small potholes and ponds. Canoeing is an excellent way to observe wildlife.

Extension activities

- 1. The canoe played an important role in the early history of Minnesota. Ask your students to make connections between important time periods and travel by canoe.
- 2. Sigurd Olson is a famous Minnesota canoeist. What is his great contribution to our environment?
- 3. Learn how birch bark canoes are made (see *The Survival of the Bark Canoe*, by John McPhee).

- 4. If your school is near a lake or river, arrange a canoeing field trip.
- 5. Many environmental learning centers offer excellent outdoor education experiences, including canoeing. See www.seek.state.mn.us/partner.cfm for a listing of resources that includes environmental learning centers.

Web resources Minnesota Canoe Association:

www.canoe-kayak.org

Minnesota DNR canoeing sites include:

www.dnr.state.mn.us/canoeing/routes.html www.dnr.state.mn.us/canoeing/tripinfo.html

Canoeing adventures:

www.uwm.edu/Dept/JMC//Olson.htm (Sigurd Olson)

Boundary Waters Canoe Area Wilderness:

www.friends-bwca.org

Audubon Center of the North Woods:

www.audubon-center.com

See also online resources listed at the end of the article.

Many related *Volunteer* articles are available online at www.dnr.state.mn.us/volunteer/articles. Some more recent articles about canoeing include:

March-April 2002

"A Search for Whitewater" (kayaking)

May–June 2001

"River Passage"

March-April 2001

"Going With the Flow"

September-October 2000

"Kayaking the Wild Shore"

Study Questions

"Let's Go Canoeing," by Cliff Jacobson. Illustrations by Ron Finger.

Minnesota Conversation Volunteer, May-June 2004

www.dnr.state.mn.us/young_naturalists/canoeing

Name	Perio	od	_ Date
1. How is canoeing down a Minnesota	11 0		
2. What advantages do canoes have o			
3. Why should you bring an extra pac	ldle and a change of (clothing?	
4. As you are canoeing down a river y important?			
5. Is canoeing a good way to observe			
6. Sketch a canoe with the following p	oarts labeled: bow, ste	ern, decks	, seats, hull, gunwales, and

7. Why is it important to keep your weight in the center of the canoe?
8. Explain how first paddling with your hands helps you learn how to use a paddle.
9.You are sitting in the bow of the canoe. You hear the paddler in the stern shout, "Hut!" What should you do? Why?
10. Compare and contrast touring canoes with freestyle canoes. Hint: How are they alike and how do they differ?
11. Why is the shape of a canoe's hull so important?
12. Why don't good canoes have keels?

Study Questions Answer Key

"Let's Go Canoeing," by Cliff Jacobson. Illustrations by Ron Finger. Minnesota Conversation Volunteer, May-June 2004 www.dnr.state.mn.us/young_naturalists/canoeing

- 1. How is canoeing down a Minnesota river like stepping back in time? **Vegetation** along the shoreline hides modern development. The river appears as it did hundreds of years ago.
- 2. What advantages do canoes have over powerboats? Canoes can go where powerboats can't, such as shallow streams and backwaters. Students may add that canoes are quiet and nonpolluting. Canoeing is good exercise.
- 3. Why should you bring an extra paddle and a change of clothing? You need an extra paddle in case you break one. Extra clothes come in handy if you capsize.
- 4. As you are canoeing down a river you see some riffles. What are they and why are they important? **Riffles are small rapids. They provide a challenging test for canoeists. They may hide rocks or other submerged hazards.**
- 5. Is canoeing a good way to observe wildlife? Why or why not? **Yes, canoeing is an excellent way to observe wildlife. Canoes are quiet.**
- 6. Sketch a canoe with the following parts labeled: bow, stern, decks, seats, hull, gunwales, and thwarts. **See illustration on pages 46–47.**
- 7. Why is it important to keep your weight in the center of the canoe? For balance. If you move too far to one side you might capsize.
- 8. Explain how first paddling with your hands helps you learn how to use a paddle. By paddling with one hand you can observe how the canoe reacts to different movements of your hand. A canoe paddle is just an extension of your hand.
- 9. You are sitting in the bow of the canoe. You hear the paddler in the stern shout, "Hut!" What should you do? Why? You should switch your paddle to the other side of the canoe. This is a good way to get you back on course.
- 10. Compare and contrast touring canoes with freestyle canoes. Hint: How are they alike and how do they differ? The two canoes have similar shapes. Touring canoes can carry heavier loads. They are bigger, heavier, and more stable than freestyle canoes, which are used for tricks.
- 11. Why is the shape of a canoe's hull so important? **Hull design determines how the canoe moves in the water.**
- 12. Why don't good canoes have keels? **Keels may catch on rocks and cause the canoe** to capsize. Good canoes rely on hull design to stay on course.

Vocabulary

"Let's Go Canoeing," by Cliff Jacobson. Illustrations by Ron Finger. Minnesota Conversation Volunteer, May-June 2004 www.dnr.state.mn.us/young_naturalists/canoeing

backwaters shallow waters away from the main current of a

river, often behind islands or in bays

Boundary 1.1 million acres of federally protected wilderness

Waters along the U.S.-Canadian border in the Arrowhead

Canoe Area region of Minnesota

Wilderness

dappled spotted

Inuits Eskimo people inhabiting the Arctic

keel on a canoe, the center of the hull from bow to stern that protrudes slightly into the water, allowing the canoe to be paddled in a straight line

PFD personal flotation device , or life jacket, helps keep you afloat if you fall into the water

portage to carry the canoe, gear, and supplies from one body of water to another

yoke the center thwart on a canoe, sometimes molded or padded to fit the shoulders when the canoe has to be carried