

Teachers Guide

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“Let’s Go Ice Fishing!” Multidisciplinary Classroom Activities

Teachers guide for the Young Naturalists article “Let’s Go Ice Fishing!” by Chris Niskanen, with illustrations by Ron Finger. Published in the January–February 2005 *Conservation Volunteer*, or visit www.dnr.state.mn.us/young_naturalists/icefishing.

Young Naturalists teachers guides are provided free of charge to classroom teachers, parents, and students. This 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 Conservation Volunteer articles), copy-ready study questions with answer key, and a copy-ready vocabulary sheet. There is also a practice quiz in Minnesota Comprehensive Assessments format. Materials may be reproduced and/or modified a to suit user needs. 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 Ice Fishing!” introduces young readers to a popular winter outdoor activity. Topics include: ice-fishing gear, bait, suggestions for getting started, fish species, types of ice-fishing shelters, proper clothing, dark-house spearing, ice-fishing events, and safety precautions. This article presents many connections to academic standards across several disciplines and grade levels.

Suggested reading levels: Third grade through middle grades

Total words: 1,963

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Materials: Print resources from your media center, DNR fishing regulations booklets, poster board, colored pencils and markers, ice-fishing equipment for classroom display.

Preparation time: One hour (not including extensions)

Estimated instructional time: Two to three 50-minute class periods (not including extensions)

Minnesota Academic Standards applications: “Let’s Go Ice Fishing!” may be applied at third grade through middle grades to the following Minnesota Department of Education Academic Standards:

Language Arts

I. Reading and Literature

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

beneficial or harmful to an organism.

GRADE 4: Earth and Space Science (III. B) The Water Cycle, Weather and Climate. Description of water cycle.

GRADE 5: Life Science (IV. F) Flow or Matter and Energy. Food webs.

GRADE 6: Physical Science (II. C) Energy Transformations. Heat transfer.

GRADE 7: Life Science (IV. F) Flow of Matter and Energy. Food webs.

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

Social Studies

V. Geography

- D. Interconnections: Students will analyze how the physical environment influences human activities

Science

- II. GRADE 3: Life Science (IV. C) Interdependence of Life. Changes in habitat can be

Arts: Artistic Expression: Visual Arts

Complete academic standards are available at www.education.state.mn.us.

Preview Before reading the article, ask students to page through it. Call attention to bold headings and to illustrations. Since many students have experienced ice fishing, the KWL (Ogle, 1986) strategy may be used to find out what

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Preview cont’d students already know (**K**) about ice fishing. As a class or in small groups, brainstorm all the ideas students have about ice fishing. Next discuss what students want (**W**) to learn (or wonder) about ice fishing. As you complete the lesson, build a list of what they learned (**L**). Display your **K** and **W** ideas on poster board while you work with the article. Complete the **L** component as you read the article and engage in extension activities. See www.teach-nology.com/web_tools/graphic_org/kwl for a ready-to-use **KWL** organizer.

Vocabulary overview Use the transparency-ready vocabulary list to preview challenging words. You may wish to provide a copy to every student or to small groups. Students may also write the terms and definitions on flashcards to aid short-term recall. Following your preview of the article, and based on your knowledge of your students’ needs, you may wish to add words to the vocabulary list. Lengthy preview lists, however, can be discouraging for reluctant readers.

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 entire study question section 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). Note that questions 4, 6, 7, 9, 11, and 13 require inferential thinking.

Adaptations Read aloud to special needs students. You may choose to complete selected study questions first and then, if time allows, complete the remaining questions. For example, first do items 1, 2, 3, 8, 10, 13, and 15. Peer helpers, paraprofessionals, or adult volunteers may lend a hand with the study questions. Flashcard drill may help students recall key vocabulary terms. With close teacher supervision, cooperative groups can offer effective support to special needs students, especially for extension activities.

Assessment You may use all or some of the study questions, combined with vocabulary, as a quiz. Other assessment ideas: (1) Ask students to write a short story about an ice-fishing experience. Require the inclusion of several key concepts, such as type of gear and bait used, species of fish caught, and a description of the shelter. (2) Students may compare and contrast winter and summer fishing. Which do they prefer and why? (3) Students may design their own assessment in the form of a quiz or presentation. Invite each student to submit one question for an assessment and select the best ones. (4) Ask students to draw an ice-fishing scene with similar key details as in assessment option 1.

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Extension activities

1. Plan a field trip to a lake near you for an ice-fishing adventure. The best way for students to learn about ice fishing is to experience it firsthand. You may enlist the support of a local outdoors organization to help with drilling holes and supplying equipment and bait.
2. Invite a representative from a store that sells ice-fishing equipment and bait to bring samples to your classroom. Tip-ups and ice fishing jigs can be easily demonstrated. This would also be an excellent opportunity to emphasize the safety precautions ice anglers must take.
3. Read *Ice Fishing* by Steven Griffin, Stackpole Books, ISBN:0811724077.
4. Winter fishing regulations differ from summer rules. Get copies of Minnesota Fishing Regulations from your regional DNR office or sporting goods store, or access the regulations on the DNR Web site (www.dnr.state.mn.us). Compare and contrast what anglers must know to obey the rules that apply in summer and winter.
5. Write haiku poems about winter, ice, and ice fishing (see Web resources).
6. Have students make a drawing (floor plan, exterior and interior designs) of their own custom ice-fishing shelter.
7. Ice fishing presents opportunities to study fish behavior as well as changes in their habitat. See Life, Earth and Physical Science objectives.
8. You can go ice fishing in surprising places, such as Arizona. Exploring other states and countries where ice fishing is popular can make a good geography connection. See Web resources.

Web resources

Minnesota DNR:

www.dnr.state.mn.us (search ice fishing)

Ice Fishing:

www.dnr.state.wi.us/org/caer/ce/eek/nature/icefish.htm

Minnesota:

www.icefishing.org

www.eelpoutfestival.com

Russia:

<http://fishing.in-russia.com>

Sweden:

www.acc.umu.se/~widmark/lwfishis.html

Arizona:

www.wmonline.com/attract/icefish.htm

Lake Erie:

www.dnr.state.oh.us/wildlife/Feature/FishF/lakeerieice04.htm

Don’t miss the rest of the **January–February 2005** *Conservation Volunteer*, a special ice-fishing issue. Other related *Conservation Volunteer* articles available online include:

July–August 2003

State of the Lakes

“Let’s Go Ice Fishing”—Teachers Guide

May–June 2003

For the Love of Pike
Tackling Toxic Tackle

March–April 2003

New Fish Limits

January–February 2003

Fishing the Ice

May–June 2002

Cult of the Bluegills

May–June 2002

Walleye

January–February 2000

Life Under Ice and Snow

References

Ogle, D.S. K-W-L Group Instructional Strategy. In A.S. Palincsar, D.S. Ogle, B.F. Jones, and E.G. Carr (Eds.), *Teaching Reading as Thinking* (Teleconference Resource Guide, pp.11–17). Alexandria, Va.: Association for Supervision and Curriculum Development, 1986.

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Study Questions

“Let’s Go Ice Fishing!” by Chris Niskanen

Minnesota Conversation Volunteer, January–February 2005

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

Name _____ Period _____ Date _____

1. Why shouldn’t you worry about getting cold or bored when you go ice fishing? _____

2. How is your ice-fishing rod different from your summer fishing rod? Why? _____

3. Suggest a good tackle-and-bait combination for ice fishing. _____

4. If you are fishing with minnows will you catch panfish? Why or why not? _____

5. How does a tip-up work? _____

6. Why do you think the tip-up was invented? _____

7. How do ice anglers know where to drill their holes? _____

8. What tools do ice anglers need to drill holes and to keep the holes from freezing? _____

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9. Why is it important to know how deep the water is where you are fishing? _____

10. If you get a bite what should you do? _____

11. When is a good time of day to fish? _____

12. Describe the options for ice-fishing shelters. Which do you prefer? Why? _____

13. Why is your choice of clothing so important when you go ice fishing? _____

14. What can the view from a dark house be compared to? _____

15. You are talking to a friend who is about to go ice fishing for the first time. What safety tips could you give her or him? _____

Study Questions Answer Key

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1. Why shouldn’t you worry about getting cold or bored when you go ice fishing? **Answers may vary, but may include: It’s exciting to catch fish. You can have hot drinks and snacks. You can run around if you start to get cold.**
2. How is your ice-fishing rod different from your summer fishing rod? Why? **It’s much shorter than a summer rod. It doesn’t have to be as long because you are standing right over the hole. You don’t have to cast your bait.**
3. Suggest a good tackle-and-bait combination for ice fishing. **Answers will vary. It depends on the species of fish you want to catch. For walleyes use a jig or a spoon and a minnow. For panfish use a small jig and a moth larvae.**
4. If you are fishing with minnows will you catch panfish? Why or why not? **Probably not. Panfish are more likely to bite on larvae or bugs.**
5. How does a tip-up work? **A flag, attached to a spool of line, springs up from the hole when you get a bite.**
6. Why do you think the tip-up was invented? **So you don’t have to stand next to the hole all the time to see if you get a bite.**
7. How do ice anglers know where to drill their holes? **Answers will vary. They go to the same spots they caught fish in summer. They use a lake map to find good spots. They use a depth finder.**
8. What tools do ice anglers need to drill holes and to keep the holes from freezing? **An auger or chisel and a scoop for keeping slush out of the hole.**
9. Why is it important to know how deep the water is where you are fishing? **The depth of the water tells you what species of fish might be near.**
10. If you get a bite what should you do? **Be patient. Do not pull in the line quickly or you might pull the hook out of the fish’s mouth.**
11. When is a good time of day to fish? **It depends on what you are fishing for. Panfish bite best during the day. Walleye and crappie bite best at sundown.**
12. Describe the options for ice fishing shelters. Which do you prefer? Why? **You can fish without a shelter. You can use a portable house or a house made of wood or metal. Or, if you want more comfort, you can build a deluxe house. Preference answers will vary.**
13. Why is your choice of clothing so important when you go ice fishing? **It’s important to dress in layers with material that stays dry to keep your body heat in.**
14. What can the view from a dark house be compared to? **An aquarium.**
15. You are talking to a friend who is about to go ice fishing for the first time. What safety tips could you give her or him? **Know how thick the ice is. Tell someone where you are going. Do not go alone. Do not walk next to your fishing partner, so if one of you breaks through the other can go for help.**

Minnesota Comprehensive Assessments Practice Items

“Let’s Go Ice Fishing!” by Chris Niskanen

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

Name _____ Period _____ Date _____

1. An ice fishing rod is _____ than a summer rod because _____.
 - A. longer; the fish are harder to catch in winter
 - B. shorter; you don’t have to cast the bait
 - C. lighter; so you can carry it more easily
 - D. heavier; it won’t break in the cold air
2. If you don’t want to pay close attention to your bobber, you can _____.
 - A. ask a friend to watch it
 - B. pull your line in until you are ready to fish
 - C. use a tip-up
 - D. take your bobber off the line
3. Ice must be at least _____ before you can safely walk across it.
 - A. 4 inches thick
 - B. 2 feet thick
 - C. 1 inch thick
 - D. blue-gray in color
4. _____ are harder to catch in winter than in summer:
 - A. Panfish
 - B. Walleye
 - C. Crappie
 - D. Bass
5. Cotton is a poor choice in clothing for ice anglers because _____.
 - A. it’s expensive
 - B. it’s the wrong color
 - C. it gets wet easily and does not dry quickly
 - D. it’s heavy

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1. An ice fishing rod is **(B) shorter** than a summer rod because **you don’t have to cast the bait**.
2. If you don’t want to pay close attention to your bobber you can **(C) use a tip-up**.
3. Ice must be at least **(A) 4 inches thick** before you can safely walk across it.
4. **(D) Bass** are harder to catch in winter than in summer.
5. Cotton is a poor choice in clothing for ice anglers because **(C) it gets wet easily and does not dry quickly**.

Vocabulary

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

angler person who fishes with a hook and line

flexible easily bent

larvae immature forms of an insect

rough fish not a game fish nor a prey of game fish

school group of the same species of fish swimming together

spoon metal fishing lure that resembles a spoon

synthetic artificial, made by people