

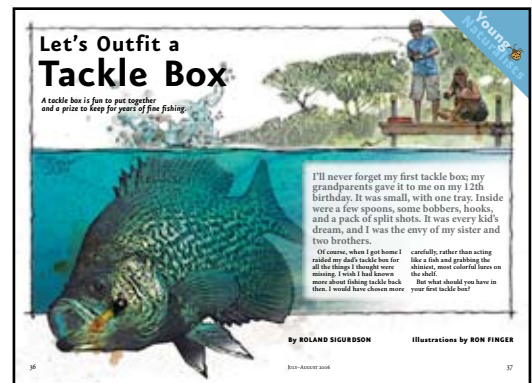
Teachers Guide

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“Let’s Outfit a Tackle Box” Multidisciplinary Classroom Activities

Teachers guide for the Young Naturalists article “Let’s Outfit a Tackle Box” by Roland Sigurdson. Illustrations by Ron Finger. Published in the July–August 2006 *Minnesota Conservation Volunteer*, or visit www.dnr.state.mn.us/young_naturalists/tacklebox.

Young Naturalists teachers guides are provided free of charge to classroom teachers, parents, and students. Each guide contains a brief summary of the article, suggested independent reading levels, word counts, 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 and vocabulary study cards. There is also a practice quiz (with answer key) 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

Summary “Let’s Outfit a Tackle Box” introduces young anglers to the basics of outfitting a first tackle box. After describing a suitable box, the author lists the most important pieces of tackle, including hooks, line, sinkers, bobbers, lures, and tools. A *Minnesota Fishing Regulations* manual, life jacket, and safety gear (first aid kit, sunscreen, and drinking water) are also essential for a fun, safe day on the water.

Suggested
reading levels:

third through sixth grades

Total words: 981

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Materials: Paper, poster board, pencils, pens, markers, and print resources from your media center, *Minnesota Fishing Regulations* booklet (see www.dnr.state.mn.us/regulations/fishing)

Preparation time: One to two hours, not including time for extension activities

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

Minnesota Academic Standards applications: “Let’s Outfit a Tackle Box” may be applied 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

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

Arts

Artistic Expression: Visual Arts

Science

Grade 3

IV. Life Science

- B. Diversity of Organisms
- C. Interdependence of Life

Grade 4

IV. Life Science

- B. Diversity of Organisms

Grade 5

IV. Life Science

- E. Biological Populations Change Over Time
- F. Flow of Matter and Energy

Social Studies

Grades 4–8

V. Geography

- D. Interconnections: The student will give examples of how people are connected to each other and to the environment.

Complete Minnesota Academic Standards are available at www.education.state.mn.us. Teachers who find other connections to standards are encouraged to contact *Minnesota Conservation Volunteer*.

Preview Survey the article. Ask your students to examine the illustrations. Use the **KWL** strategy (Ogle, 1986) to find out what your students already know (**K**) about fishing and fishing tackle, what (**W**) they would like to learn, and eventually, what they learned (**L**) while reading the article and related

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materials and through participating in extension activities. Display your **K** and **W** ideas on poster board or paper (see Vocabulary preview, below). Add to your **L** list as you read and discuss the article. See www.teach-nology.com/web_tools/graphic_org/kwl for a **KWL** generator that will produce individual organizers for your students.

Vocabulary preview

You may wish to preview the attached list as well as any other words based on knowledge of your students’ needs. Connections to vocabulary in the article may be made during the **KWL** activity. These are key concepts and should be discussed before reading. If students are not familiar with some of the terms, include them in the **W** list. Unfamiliar terms may be added to the **W** list as the article is read. Eventually, they can be moved to the **L** list. You may write vocabulary from the article in green ink, while other ideas are written in black. You may wish to use the study cards found at the end of this guide. Study cards (Hock, Deshler, and Schumaker, 2000), can be applied to any subject area. Cut along the horizontal lines, fold in the middle, and tape or staple. Blanks are provided to allow you or your students to add new words or phrases. On one side of the card, in large letters, write a key word or phrase from the article that students are expected to know. In smaller letters frame the word or phrase in a question or statement. On the other side of the card, in large letters, write the answer to the question. Finally, in smaller letters, frame the answer in a question or statement. This vocabulary list also gives the teacher a chance to talk about words with multiple meanings, such as spoon, tackle, and stalk. See www.manatee.k12.fl.us/sites/elementary/palmasola/multiplemean.htm for excellent multiple-meaning activities and materials. There are also two homographs, bass and lead, that will stimulate interesting discussion.

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). Preview the entire guide with your class before you read the article. You may wish to read the story aloud and complete the study questions in class, in small groups, or as an independent activity. 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, below). The study questions may also be used as a quiz. Note: Items 1, 6, 10, 12, and 14 require analytical thinking.

Adaptations

Read aloud to special needs students. Abbreviate the study questions or highlight priority items to be completed first—for example, items 3, 4, 8, 10, 11, and 13. If time allows, remaining items may be attempted. 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.

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Assessment You may use all or some of the study questions, combined with vocabulary, as a quiz. Other assessment ideas: (1) Students may write an essay describing a fishing experience. (2) Students may sketch one or more fish species, including the lures or bait used to catch the fish. (3) Students may write an essay or design a poster comparing and contrasting advantages and disadvantages of live and artificial bait (with emphasis on what to do with unused live bait). (4) Student teams may debate the merits of using artificial versus live bait.

Extension activities

1. Read “Fishing for Words” and/or “The Scoop on Minnows,” also in the July–August 2006 issue of the *Conservation Volunteer*. You may include vocabulary from either article in your preview and assessment. Students may compare and contrast the information from the articles in essay or graphic form.
2. Order a free *Northland Fisherman Fishing Guide* from Northland Fishing Tackle (www.northlandtackle.com). Readers will learn a little bit about a variety of fishing topics, from equipment to weather to basic knot tying. This guide will give students many ideas for creating their own fishing lure (see activity 6).
3. The DNR offers several excellent fishing Web sites, including: Minnesota Fishing (www.dnr.state.mn.us/fishing), Lake Finder (www.dnr.state.mn.us/lakefind) and Fishing Downtown (www.dnr.state.mn.us/fishing/downtown).
All three sites provide added breadth and depth to topics from the articles. Students may print maps of a favorite lake and/or do research on species of fish found in a lake, fish consumption advisories, and water clarity. Guest speakers from the DNR may visit your class to present fishing or water resource information.
4. MinnAqua (www.dnr.state.mn.us/minnaqua) has a six-chapter curriculum that culminates in a fishing trip. The curriculum is full of activities you can use with your students.
5. Most schools in Minnesota are near lakes and rivers. Plan a fishing field trip.
6. A classroom aquarium will give students a chance to observe baitfish described in “The Scoop on Minnows.” An aquarium may also be used to demonstrate how different lures behave as they move through water.
7. Students may design their own fishing lure, either on paper or with modeling clay. Or have students make lures out of found objects (paper clips, rubber bands, hair barrettes, bits of aluminum foil, beads, feathers, etc.) and take turns explaining to the rest of the class why they think their lure would attract fish.
8. Encourage students to learn about the hazards of lead tackle and what is being done to protect birds from lead poisoning. A good place to start is the American Sport Fishing Association Web site (www.asafishing.org/asa/government/lead_in_tackle.html).

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Web resources Related *Minnesota Conservation Volunteer* articles (see www.dnr.state.mn.us/volunteer/articles) include:

July–August 2006

“The Scoop on Minnows”

May–June 2006

“Red Lake: Back to the Future”

January–February 2006

“You Don’t Want to Eat That Raw”

July–August 2005

“The Big Appeal of Smallmouth Bass”

May–June 2005

“Opening Day”

January–February 2005

“Let’s Go Ice Fishing!”

November–December 2004

“Fishing for a Living”

July–August 2004

“Muskie Rampage”

March–April 2004

“Fishing With Small Fry”

September–October 1999

“Monsters of the Deep” (YN article)

May–June 1996

“Fish Sense” (YN article with teachers guide)

- References**
1. Hock, M.F., Deshler, D.D., and Schumaker, J.B. *Strategic Tutoring*. Lawrence, Kan.: Edge Enterprises, 2000.
 2. 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 Outfit a Tackle Box,” by Roland Sigurdson. Illustrations by Ron Finger

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

Name _____ Period _____ Date _____

1. Why do you think the author was the envy of his sister and brothers? _____

2. When he looked for tackle in his dad’s box, the author compared himself to a fish. Why? _____

3. List several characteristics of a good tackle box. _____

4. How does the number of a hook indicate its size? _____

5. Which hook sizes are recommended for panfish? _____ .

6. Why might a knot-tying card be a good addition to your tackle box? _____ .

7. Lead sinkers can be hazardous. Why? _____ .

8. How does the size of the lure you choose affect what you catch? _____

9. Suggest an artificial lure to catch the fish listed below _____

Walleye _____ Muskie _____

Sunfish _____ Bass _____

Trout _____ Northern Pike _____

10. Why would you want to have a *Minnesota Fishing Regulations* booklet in your box? _____

11. List at least three other gadgets you would put into your box and why you would include them. _____

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12. A ruler might keep you from breaking a regulation. How? _____

13. Name one thing you do not have to put in your box if you are 15 or younger. _____

14. If you are out on a lake fishing and you hear three whistle blasts, what should you do?

Challenge: You are looking in your mom’s tackle box and you find a hard plastic lure with no hooks. What is it used for?

Study Questions Answer Key

“Let’s Outfit a Tackle Box,” by Roland Sigurdson. Illustrations by Ron Finger

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

1. **Why do you think the author was the envy of his sister and brothers?** He was probably older than his siblings. They would have to wait until they turned 12 to get their first tackle box.
2. **When he looked for tackle in his dad’s box, the author compared himself to a fish. Why?** Just like a fish, he was attracted to the flashiest lure.
3. **List several characteristics of a good tackle box.** Strong, waterproof, with a good handle and latch.
4. **How does the number of a hook indicate its size?** Smaller hooks have larger numbers.
5. **Which hook sizes are recommended for panfish?** Small hooks (6, 8, and 10)
6. **Why might a knot-tying card be a good addition to your tackle box?** It can be hard to remember how to tie the right knot.
7. **Lead sinkers can be hazardous. Why?** Lead is poisonous to birds and animals (and to the angler, so don’t put lead sinkers in your mouth).
8. **How does the size of the lure you choose affect what you catch?** To catch a big fish use a big lure.
9. **Suggest an artificial lure to catch the fish listed below:**
Walleye jig, plastic worm, crankbait, popper, spoon
Muskie jig, crankbait, popper
Sunfish jig, plastic worm, popper
Bass jig, plastic worm, spinner, crankbait, popper, spoon
Trout jig, spinner, popper, spoon
Northern pike jig, spinner, crankbait, popper, spoon
10. **Why would you want to have a *Minnesota Fishing Regulations* booklet in your box?** So you can learn and follow fishing regulations.
11. **List at least three other gadgets you would put into your box and why you would include them.** Student should include at least three of the following: leaders, snap swivels, fingernail clippers, needle-nose pliers, practice plug, stringer, and lake or stream maps, with at least one reason for including each.
12. **A ruler might keep you from breaking a regulation. How?** You may keep only fish of a certain length.
13. **Name one thing you do not have to put in your box if you are 15 or younger.** If you are under 16 years old you do not need a license.

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14. **If you are out on a lake fishing and you hear three whistle blasts what should you do?** Three whistle blasts is a call for help. If you can, help. If not, then call or go for help.

Challenge: You are looking in your mom’s tackle box and you find a hard plastic lure with no hooks. What is it used for? It is most likely a practice plug for improving casting skills.

Minnesota Comprehensive Assessments Practice Items

“Let’s Outfit a Tackle Box,” by Roland Sigurdson. Illustrations by Ron Finger

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

Name _____ Period _____ Date _____

1. If you are carrying your tackle box on a bicycle it should have a
 - A. bobber in it.
 - B. strong latch.
 - C. full tray.
 - D. sinker keeper.

2. To avoid dehydration always bring _____ on fishing trips.
 - A. drinking water
 - B. sunscreen
 - C. a hat
 - D. candy

3. Most jigs have three parts, a _____.
 - A. hook, line, and sinker
 - B. spool, line, and bobber
 - C. head, hook, and tail
 - D. spoon, swivel, and leader

4. A _____ is an example of an artificial bait
 - A. spinner
 - B. worm
 - C. leech
 - D. minnow

5. Why is fishing tackle dangerous for loons?
 - A. They may be attracted to the lure.
 - B. They may be caught by a net.
 - C. They may be run over by boats.
 - D. They may get lead poisoning from swallowing lead sinkers.

Minnesota Comprehensive Assessments Practice Items Answer Key

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1. If you are carrying your tackle box on a bicycle it should have a **B. strong latch.**
2. To avoid dehydration always bring **A. drinking water** on fishing trips.
3. Most jigs have three parts, a **C. head, hook, and tail**
4. A **A. spinner** is an example of artificial bait
5. Why is fishing tackle dangerous for loons? **D. They may get lead poisoning from swallowing lead sinkers.**

Vocabulary

“Let’s Outfit a Tackle Box,” by Roland Sigurdson. Illustrations by Ron Finger

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

bass	several species of predatory fish that favor shallow, weedy areas of lakes and rivers
bobber	a floating device that attaches to fishing line to hold the baited hook at a desired depth
dehydrated	having lost water
entice	to lure or attract
envy	desire for the possessions of another
fixed bobber	bobber that stays in one position on the fishing line
improved clinch knot	preferred knot for tying lures to monofilament (fishing) line
lead	toxic heavy metal used in some fishing tackle
lure	artificial bait; a device made of metal, wood, plastic, feathers, etc., used to entice fish
muskie	a predatory fish that is a larger relative to northern pike; a much sought-after trophy fish
northern pike	popular game fish, known for its fighting spirit

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panfish	several species of round, flat fish, including sunfish, crappie, and rock bass
PFD	personal flotation device (life jacket) worn to keep a person floating in water
predator	animal that eats other animals
slip bobber	bobber that slides along the fishing line as the bait is reeled in
species	a group of living things that can breed with each other but not with other living things
split shot	fishing sinker that is cut part way through and squeezed onto the line
spoon	shiny, curved, metallic fishing lure
stalk	to track or pursue
tackle	equipment used in fishing
toxic	hazardous, poisonous
trout	freshwater relative of salmon, often caught with a fly
walleye	most popular Minnesota game fish, member of the perch family, named for its reflective eyes

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Vocabulary Study Cards

“Let’s Outfit a Tackle Box,” by Roland Sigurdson. Illustrations by Ron Finger

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

Cut along the horizontal lines, fold in the middle and tape or staple. Blanks are provided to allow you or your students to add new words or phrases.

In a tackle box, a
spoon
is

A
**shiny, curved metallic
fishing lure**
is a

What does
split shot
mean?

**A fishing sinker that is
squeezed onto the line**
is a

What is
envy?

What is
**a desire for someone else’s
possessions**
called?

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What is fishing
tackle?

What is
**the equipment
used in fishing**
called?

An example of a
panfish
is

What is a
sunfish
an example of?

A
walleye
is

**The most popular
Minnesota game fish**
is the

What is the
northern pike?

**A smaller relative of the
muskie, known for its
fighting spirit**
is the

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When should
an angler use the
improved clinch knot?

The best way
**to tie a lure to
monofilament (fishing) line**
is with an

What is
lead?

A
**toxic heavy metal used in
making some fishing tackle**
is

When a substance is
toxic
it is

What is a
substance that is
hazardous or poisonous
called?

What is a
fixed bobber?

What is
**a bobber that stays in
one spot on the fishing line**
called?

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What is a
slip bobber?

What is
**a bobber that slides
along the fishing line
when reeled in**
called?

What does
species
mean?

**Animals that can breed
with each other**
are members of the same

A
predator
is

What is
**an animal that eats
other animals**
called?

What type of fish is a
bass?

**A predatory fish that
lives in shallow,
weedy water**
may be a

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What is a
muskie?

A
**large, aggressive
game fish**
may be a

What is a
trout?

A
**freshwater cousin
of salmon**
is called a

An example of a
lure
is

Artificial bait, such as a
**spoon, jig, spinner, or
crankbait**
is a

What does it mean to
entice
a fish?

When you
attract or lure
a fish to your bait, you

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What is a
PFD?

Another name for a
life jacket
is

When you become
dehydrated,
your body

When your body
loses too much water,
you become

What does
to stalk
mean?

What does
to track or pursue
mean?

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