**MINNESOTA CONSERVATION VOLUNTEER** 

# Teachers Guide

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# "Gallery of Game" Multidisciplinary Classroom Activities

Teachers guide for the Young Naturalists article "Gallery of Game," by Jason Abraham. Published in the September–October 2004 *Volunteer*, or visit www.dnr.state.mn.us/ young\_naturalists/gallery.

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 "Young Naturalists" articles), copyready 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 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** In "Gallery of Game," young hunters, photographers, and wildlife watchers will learn hints for finding five of Minnesota's most popular game animals: white-tailed deer, eastern cottontail rabbits, eastern gray squirrels, mallard ducks, and ring-necked pheasants. Each animal is described in terms of habitat, diet, activity patterns, tracks and signs, and defensive behaviors.

Suggested<br/>reading levels:Fourth through eighth grade

Total words: 1,965

Materials:	Print resources from your media center, poster board, colored pencils and markers, <i>Minnesota Hunting and Trapping Regulations Handbook</i> (free from license vendors or at www.dnr.state.mn.us/regulations/hunting.)			
Preparation time:	One hour (not including extensions)			
Estimated instructional time:	Two to three 50-minute class periods (not including extensions)			
Minnesota Academic Standards applications:	"Gallery of Game" may be applied at fourth through eighth grades to the following Minnesota Department of Education Academic Standards:			
	<ul> <li>I. Reading and Literature <ul> <li>A. Word Recognition, Analysis and Fluency</li> <li>B. Vocabulary Expansion</li> <li>C. Comprehension</li> <li>D. Literature</li> </ul> </li> <li>II. Writing <ul> <li>A. Types of Writing</li> <li>B. Elements of Composition</li> <li>C. Spelling</li> <li>D. Research</li> <li>E. Handwriting and Word Processing</li> </ul> </li> <li>III. Speaking, Listening and Vord Viewing <ul> <li>A. Speaking and Listening</li> <li>B. Media Literacy</li> </ul> </li> <li>Social Studies <ul> <li>Minnesota History Grades 4–8</li> <li>II. A. Pre-contact to 1650: the student will demonstrate knowledge of Minnesota's indigenous peoples</li> <li>B. Contact and fur trade 1600–1810</li> <li>C. Early settlement and statehood 1810–1860</li> <li>D. Industrial era 1865–1914</li> <li>G. Post–World War II to present</li> </ul> </li> </ul>			

Complete Academic Standards are available at www.education.state.mn.us.

**Preview** Start by noting that the information in the article can be useful not only to hunters, but also to anyone who enjoys observing or photographing nature.

Ask students to preview the photos and paragraph headings. Then use the **KWL** (Ogle, 1986) strategy to find out what students already know **(K)** about the five game animals described in the article. Students may enjoy sharing hunting or close encounter stories. Next discuss what they would like **(W)** to learn. 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
 preview
 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. Note that several terms are defined in the text.

**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). The study questions may also serve as a quiz. Note that questions 1, 2, 7, 9, and 14 require inferential thinking.

- **Adaptations** Read aloud to special needs students. You may choose to abbreviate the study questions and then, if time allows, complete the remaining questions. For example, first do items 1, 8, 10, 11, and 13. 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 also 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) Students may create a five-column chart to accommodate each animal in the story. Students may include descriptions of habitat, diet, signs, defense strategies, and hunter/observer strategies. (2) Ask students to describe in a short essay how one or more of the animals may be hunted or observed. (3) Students may investigate a Web site from the Web resources list and submit a written or oral report on how the site reinforces or adds to information in the article. (4) Advanced students may be asked to write a persuasive essay for or against hunting.

# Extensionactivities"Gallery of Game" provides an excellent opportunity to engage your students in a debate on the merits or values of hunting, fishing, and trapping. Questions may include: Why do people hunt, trap, or fish? How do hunting, fishing, and trapping affect populations of game

animals? How do these activities affect the economy? Your local DNR office may be able to help arrange guest speakers. See Minnesota Academic Standards applications above for several connections to Minnesota history. Social studies standards for grades four through eight present an opportunity to study changes in hunting and trapping regulations in the context of a changing society. Please note that hunting can be an emotionally charged topic for some students. If you decide to engage in a debate, establish ground rules for respectful discussion.

- 2. Expand upon the article by investigating the removal from the endangered species list of the gray (timber) wolf by the federal government. If the wolf is no longer an endangered species, should it be hunted and trapped? Poster projects with brief presentations are an excellent vehicle for allowing students to demonstrate what they have learned. See Web resources.
- 3. Use the Jigsaw (Aronson et al., 1978) cooperative learning strategy to study each of the five species covered in the article in more depth. For example, you may select three questions from the W list of KWL. Divide your class into groups of five. Assign one animal to each group member. Next, reorganize into five "expert" groups, one for each animal. Allow expert groups time to gather information on each question before sending members back to their original groups, where they will teach their peers what they have learned. Groups may then present their conclusions to the class, turn in their findings on paper, or make posters.
- 4. Invite a representative of a hunting advocacy group, such as Ducks Unlimited or Pheasants Forever, to your class to share how advocacy groups promote habitat preservation and ethical hunting practices.
- 5. Introduce your class to the Minnesota Nongame Wildlife Program at www.dnr.state.mn.us/ecological\_services/nongame. The nongame program supports a variety of preservation and rehabilitation projects. Nongame specialists are available as resources in six regional offices across the state.
- 6. State park naturalists can help set up field trips in settings where students can observe wildlife. Trips can be paired with writing and art projects from activities 1 and 3

#### Web resources Tracking Animals

www.princeton.edu/~oa/nature/naturobs.shtml gorp.away.com/gorp/activity/wildlife/skills/jg\_viewing.htm

#### Wolves

www.dnr.state.mn.us/snapshots/mammals/graywolf.html www.pbs.org/wgbh/nova/wolves www.kidsplanet.org/www

#### Ducks

www.dnr.state.mn.us/snapshots/birds www.ducksunlimited.org

#### Deer

www.dnr.state.mn.us/snapshots/mammals/whitetaileddeer.html www.whitetaildeer.com www.nhptv.org/natureworks/whitetaileddeer.htm

www.mndeerhunters.com

#### Rabbits

www.dnr.state.mn.us/snapshots/mammals/easterncottontail.html www.42explore.com/rabbits.htm

#### Squirrels

www.dnr.state.mn.us/snapshots/mammals/graysquirrel.html spot.colorado.edu/~halloran/sqrl.html

#### Pheasants

www.dnr.state.mn.us/snapshots/birds/ringneckedpheasant.html www.pheasantsforever.org

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

Related *Volunteer* articles available online at www.dnr.state.mn.us/young\_naturalists include:

#### January–February 2003

"Hopping with Hares and Rabbits" \*
November–December 1998
"Chickens That Wear Snowshoes"
September–October 1998
"Join the Hunt"
March–April 1998
"Minnesota Ducks Dabble or Dive for Dinner"
November–December 1997
"Who Made These Tracks?"
September–October 1996
"Oh Deer!" \*
November–December 1995
"A Real Turkey"
January–February 1993
"Black Bear Yearbook"

\*With teachers guide

# **References** Aronson E., Blaney N., Stephan C., Sikes J., and Snapp M. The jigsaw classroom. Beverly Hills: Sage, 1978.

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.

<b>Study Questions</b> "Gallery of Game," by Jason Abraham Minnesota Conversation Volunteer, September–October www.dnr.state.mn.us/young_naturalists/gallery	r 2004
Name	PeriodDate
1. What must successful hunters and photo pursuing? Why?	graphers know about the animals they are
2. Why do deer leave ragged marks on leav	ves and branches they chew on?
3. How does the presence of people change	the habits of whitetails? Why?
4. Why does a buck rub his antlers against	young trees and bushes?
5. If you are stalking a deer, why should yo	u approach up wind?
6. Describe two ways to search for deer	
7. If you have an apple orchard, why are yo	ou concerned about rabbits?
8. How do rabbits use their sense of touch t	o avoid predators?

9. If rabbits circle back to the place where you flushed them, what strategy would you use to hunt them?

10. What advice would you give to an inexperienced squirrel hunter or photographer?

11. Why do ducks choose to fly on cloudy days? \_\_\_\_\_

12. Most duck hunters camouflage their blinds. Why? \_\_\_\_\_

 13. Pheasants were imported to the United States from \_\_\_\_\_\_ in \_\_\_\_\_.

 14. Why do you think pheasants are called "wild chickens"? \_\_\_\_\_\_

15. Which of the five hunting regulations on pages 44–45 apply to you?

#### **Study Questions Answer Key**

"Gallery of Game," by Jason Abraham Minnesota Conversation Volunteer, September–October 2004 www.dnr.state.mn.us/young\_naturalists/gallery

1. What must successful hunters and photographers know about the animals they are pursuing? Why? **They must know their habits, senses, and behaviors so that they can locate them and get close to them.** 

2. Why do deer leave ragged marks on leaves and branches they chew on? They have no front upper teeth, so they actually tear off pieces of plants and then chew with their back teeth.

3. How does the presence of people change the habits of whitetails? Why? When people are near, deer change their feeding times from daytime to nighttime.

4. Why does a buck rub his antlers against young trees and bushes? **To rub the velvet covering off.** 

5. If you are stalking a deer, why should you approach upwind? **Deer have a keen sense of smell.** If approached from downwind, they will almost certainly smell you long before you get close enough for a good view.

6. Describe two ways to search for deer. Find a deer trail and wait, or move very slowly while you look and listen.

7. If you have an apple orchard, why are you concerned about rabbits? **They often chew the bark from around the bottom of trees, which kills them.** 

8. How do rabbits use their sense of touch to avoid predators? **They feel the vibrations of other animals' movements traveling through the ground.** 

9. If rabbits circle back to the place where you flushed them, what strategy would you use to hunt them? **Answers will vary, but should indicate an awareness of how such knowledge would give the hunter an advantage.** 

10. What advice would you give to an inexperienced squirrel hunter or photographer? Learn where to find squirrels, in thick hardwood forests. Look for nests and signs of digging, where they have buried or dug up nuts. Notice if empty shells of acorns or walnuts are present. Be quiet and search high branches for movement. Listen for chattering or clucking.

11. Why do ducks choose to fly on cloudy days? They are more difficult for hunters to see.

12. Most duck hunters camouflage their blinds. Why? **Ducks have keen eyesight. They detect reflections off skin or guns.** 

13. Pheasants were imported to the United States from China in 1861.

14. Why do you think pheasants are called "wild chickens"? **Answers will vary. Their appearance, habits, or calls are similar to chickens.** 

15. Which of the five hunting regulations on pages 44–45 apply to you? **Answers will vary depending on the age and experience of students.** 

## **Minnesota Comprehensive Assessments Practice Items**

"Gallery of Game," by Jason Abraham Minnesota Conversation Volunteer, September–October 2004 www.dnr.state.mn.us/young\_naturalists/gallery

Nar	ne	Period	_Date
1. E / E C I	<ul> <li>astern cottontails use their sense of touch to avoid</li> <li>putting their noses to the wind</li> <li>feeling vibrations in the ground</li> <li>rubbing against a tree trunk</li> <li>scratching the ground with their hind feet</li> </ul>	danger by	
2. N # E C I	Aallard ducks have a keen sense of A. hearing 5. smell 2. sight D. touch		
3. I <i>A</i> E C I	n a populated area, when is the best time to see dee a. noon 5. 3 p.m. 2. just before dark 0. 10 a.m.	er?	
4. T 7 E C I	The best place to hunt for gray squirrels is A. pine forests B. wetlands C. prairies D. hardwood forests		
5. H A E C I	<ul> <li>Junters often use dogs to hunt pheasants because</li> <li>a. dogs are humans' best friends</li> <li>a. a dog's favorite food is pheasant</li> <li>c. dogs help find and flush the birds</li> <li>b. dogs keep hunters from getting lost</li> </ul>		

#### **Minnesota Comprehensive Assessments Practice Items Answer Key**

"Gallery of Game," by Jason Abraham Minnesota Conversation Volunteer, September–October 2004 www.dnr.state.mn.us/young\_naturalists/gallery

- 1. Eastern cottontails use their sense of touch to avoid danger by **(B) feeling vibrations in the ground**
- 2. Mallard ducks have a keen sense of (C) sight
- 3. In a populated area, when is the best time to see deer? (C) just before dark
- 4. The best place to hunt for gray squirrels is (D) hardwood forests
- 5. Hunters often use dogs to hunt pheasants because (C) dogs help find and flush the birds

#### Vocabulary

"Gallery of Game," by Jason Abraham Minnesota Conversation Volunteer, September–October 2004 www.dnr.state.mn.us/young\_naturalists/gallery

acute hearing sensitive or keen hearing

**aquatic** growing or living in or on water

camouflaged blending in with surroundings

cavities holes

**dabbling** feeding off the bottom in shallow water

exquisite fine: acute

**flush** to cause to move from a hiding place

game animal wild animal hunted for sport or food

incessantly never stopping

**nocturnal** active at night

predator animal that kills and eats other animals

quarry prey; object of a chase

sheds antlers of deer after they have fallen off

**slough** wetland or swamp, backwater