

Beavers & How They Live

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AIMS TEACHING MODULE WRITTEN BY PATRICIA HYNES

Congratulations!

You have chosen a learning program that will actively motivate your students AND provide you with easily accessible and easily manageable instructional guidelines designed to make your teaching role efficient and rewarding.

The AIMS Teaching Module provides you with a video program keyed to your classroom curriculum, instructions and guidelines for use, plus a comprehensive teaching program containing a wide range of activities and ideas for interaction between all content areas. Our authors, educators, and consultants have written and reviewed the AIMS Teaching Modules to align with the Educate America Act: Goals 2000.

This ATM, with its clear definition of manageability, both in the classroom and beyond, allows you to tailor specific activities to meet all of your classroom needs.

RATIONALE

In today's classrooms, educational pedagogy is often founded on Benjamin S. Bloom's "Six Levels of Cognitive Complexity." The practical application of Bloom's Taxonomy is to evaluate students' thinking skills on these levels, from the simple to the complex: Knowledge (rote memory skills), Comprehension (the ability to relate or retell), Application (the ability to apply knowledge outside its origin), Analysis (relating and differentiating parts of a whole), Synthesis (relating parts to a whole), and Evaluation (making a judgment or formulating an opinion).

The AIMS Teaching Module is designed to facilitate these intellectual capabilities, AND to integrate classroom experiences and assimilation of learning with the students' life experiences, realities, and expectations. AIMS' learner verification studies prove that our AIMS Teaching Modules help students to absorb, retain, and to demonstrate ability to use new knowledge in their world. Our educational materials are written and designed for today's classroom, which incorporates a wide range of intellectual, cultural, physical, and emotional diversities.

ORGANIZATION AND MANAGEMENT

To facilitate ease in classroom manageability, the AIMS Teaching Module is organized in four sections, identifiable by their color across the top of the page and at the side tab margin. You are reading **SECTION 1, INTRODUCTION TO THE AIMS TEACHING MODULE (ATM).**

SECTION 2, INTRODUCING THIS ATM will give you the specific information you need to integrate the program into your classroom curriculum.

SECTION 3, PREPARING FOR VIEWING provides suggestions and strategies for motivation, language preparedness, readiness, and focus prior to viewing the program with your students.

SECTION 4, AFTER VIEWING THE PROGRAM provides suggestions for additional activities plus an assortment of consumable assessment and extended activities, designed to broaden comprehension of the topic and to make connections to other curriculum content areas.

FEATURES

INTRODUCING EACH ATM

SECTION 2

Your AIMS Teaching Module is designed to accompany a video program written and produced by some of the world's most credible and creative writers and producers of educational programming. To facilitate diversity and flexibility in your classroom, your AIMS Teaching Module features these components:

Themes

The Major Theme tells how this AIMS Teaching Module is keyed into the curriculum. Related Themes offer suggestions for interaction with other curriculum content areas, enabling teachers to use the teaching module to incorporate the topic into a variety of learning areas.

Overview

The Overview provides a synopsis of content covered in the video program. Its purpose is to give you a summary of the subject matter and to enhance your introductory preparation.

Objectives

The ATM learning objectives provide guidelines for teachers to assess what learners can be expected to gain from each program. After completion of the AIMS Teaching Module, your students will be able to demonstrate dynamic and applied comprehension of the topic.

PREPARATION FOR VIEWING

SECTION 3

In preparation for viewing the video program, the AIMS Teaching Module offers activity and/or discussion ideas that you may use in any order or combination.

Introduction To The Program

Introduction to the Program is designed to enable students to recall or relate prior knowledge about the topic and to prepare them for what they are about to learn.

Introduction To Vocabulary

Introduction to Vocabulary is a review of language used in the program: words, phrases, usage. This vocabulary introduction is designed to ensure that all learners, including limited English proficiency learners, will have full understanding of the language usage in the content of the program.

Discussion Ideas

Discussion Ideas are designed to help you assess students' prior knowledge about the topic and to give students a preview of what they will learn. Active discussion stimulates interest in a subject and can motivate even the most reluctant learner. Listening, as well as speaking, is active participation. Encourage your students to participate at the rate they feel comfortable. Model sharing personal experiences when applicable, and model listening to students' ideas and opinions.

Focus

Help learners set a purpose for watching the program with Focus, designed to give students a focal point for comprehension continuity.

Jump Right In

Jump Right In provides abbreviated instructions for quick management of the program.

AFTER VIEWING THE PROGRAM

SECTION 4

After your students have viewed the program, you may introduce any or all of these activities to interact with other curriculum content areas, provide reinforcement, assess comprehension skills, or provide hands-on and in-depth extended study of the topic.

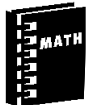
SUGGESTED ACTIVITIES

The Suggested Activities offer ideas for activities you can direct in the classroom or have your students complete independently, in pairs, or in small work groups after they have viewed the program. To accommodate your range of classroom needs, the activities are organized into skills categories. Their labels will tell you how to identify each activity and help you correlate it into your classroom curriculum. To help you schedule your classroom lesson time, the AIMS hourglass gives you an estimate of the time each activity should require. Some of the activities fall into these categories:



Meeting Individual Needs

These activities are designed to aid in classroom continuity. Reluctant learners and learners acquiring English will benefit from these activities geared to enhance comprehension of language in order to fully grasp content meaning.



Curriculum Connections

Many of the suggested activities are intended to integrate the content of the ATM program into other content areas of the classroom curriculum. These cross-connections turn the classroom teaching experience into a whole learning experience.



Critical Thinking

Critical Thinking activities are designed to stimulate learners' own opinions and ideas. These activities require students to use the thinking process to discern fact from opinion, consider their own problems and formulate possible solutions, draw conclusions, discuss cause and effect, or combine what they already know with what they have learned to make inferences.



Cultural Diversity

Each AIMS Teaching Module has an activity called Cultural Awareness, Cultural Diversity, or Cultural Exchange that encourages students to share their backgrounds, cultures, heritage, or knowledge of other countries, customs, and language.



Hands On

These are experimental or tactile activities that relate directly to the material taught in the program. Your students will have opportunities to make discoveries and formulate ideas on their own, based on what they learn in this unit.



Writing

Every AIMS Teaching Module will contain an activity designed for students to use the writing process to express their ideas about what they have learned. The writing activity may also help them to make the connection between what they are learning in this unit and how it applies to other content areas.



In The Newsroom

Each AIMS Teaching Module contains a newsroom activity designed to help students make the relationship between what they learn in the classroom and how it applies in their world. The purpose of In The Newsroom is to actively involve each class member in a whole learning experience. Each student will have an opportunity to perform all of the tasks involved in production: writing, researching, producing, directing, and interviewing as they create their own classroom news program.



Extended Activities

These activities provide opportunities for students to work separately or together to conduct further research, explore answers to their own questions, or apply what they have learned to other media or content areas.



Link to the World

These activities offer ideas for connecting learners' classroom activities to their community and the rest of the world.



Culminating Activity

To wrap up the unit, AIMS Teaching Modules offer suggestions for ways to reinforce what students have learned and how they can use their new knowledge to enhance their world view.

VOCABULARY

Every ATM contains an activity that reinforces the meaning and usage of the vocabulary words introduced in the program content. Students will either read or find the definition of each vocabulary word, then use the word in a written sentence.

CHECKING COMPREHENSION

Checking Comprehension is designed to help you evaluate how well your students understand, retain, and recall the information presented in the AIMS Teaching Module. Depending on your students' needs, you may direct this activity to the whole group yourself, or you may want to have students work on the activity page independently, in pairs, or in small groups. Students can verify their written answers through discussion or by viewing the video a second time. If you choose, you can reproduce the answers from your Answer Key or write the answer choices in a Word Bank for students to use. Students can use this completed activity as a study guide to prepare for the test.

CONSUMABLE ACTIVITIES

The AIMS Teaching Module provides a selection of consumable activities designed to specifically reinforce the content of this learning unit. Whenever applicable, they are arranged in order from low to high difficulty level, to allow a seamless facilitation of the learning process. You may choose to have students take these activities home or to work on them in the classroom independently, in pairs or in small groups.

CHECKING VOCABULARY

The Checking Vocabulary activity provides the opportunity for students to assess their knowledge of new vocabulary with this word game or puzzle. The format of this vocabulary activity allows students to use the related words and phrases in a different context.

TEST

The AIMS Teaching Module Test permits you to assess students' understanding of what they have learned. The test is formatted in one of several standard test formats to give your students a range of experiences in test-taking techniques. Be sure to read, or remind students to read, the directions carefully and to read each answer choice before making a selection. Use the Answer Key to check their answers.

ADDITIONAL AIMS MEDIA PROGRAMS

After you have completed this AIMS Teaching Module you may be interested in more of the programs that AIMS offers. This list includes several related AIMS programs.

ADDITIONAL READING SUGGESTIONS

AIMS offers a carefully researched list of other resources that you and your students may find rewarding.

ANSWER KEY

The Answer Key reproduces tests and work pages with answers marked to all activities and tests.

Beavers & How They Live

THEMES

The major theme in *Beavers and How They Live* is in life sciences: Characteristics of living things and living things in their habitats. Related themes include ecosystems, relationships among living things, and human responsibilities toward conservation.

OVERVIEW

Beavers and How They Live affords an intimate look at the life of one beaver family, and in the process reveals a great deal about this species. Viewers follow the family through its daily—and nightly—routine as well as through the summer season. This examination reveals many things: the roles played by each family member, the physical characteristics that make the beavers so uniquely suited to their environment and the jobs they do, the results of the beavers' labors and how these affect not only that species but other members of the ecosystem. Excellent photography allows viewers to appreciate the beauty of the natural setting, the amazing resourcefulness of the beavers, and—of vital importance in catching and sustaining the interest of some learners—just how cute these animals are.

OBJECTIVES

- ▶ To describe the habits and the physical characteristics of the beaver throughout its life cycle
- ▶ To identify the characteristics of the beaver that make it well-suited to its habitat
- ▶ To understand and appreciate the role played by the beaver in the wetlands ecosystem

Use this page for your individual notes about planning and/or effective ways to manage this
AIMS Teaching Module in your classroom.

Our AIMS Media Educational Department welcomes your observations and comments.
Please feel free to address your correspondence to:

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INTRODUCTION TO THE PROGRAM

Help students locate the Rocky Mountains on a classroom map or globe, and explain that this is the setting of the video. Depending on your own geographic location, use one of these activities:

Have learners make predictions about the physical features, flora, and so forth that they will see in the video. List all of these, and save the list for additions and modifications after viewing.

Ask the class to quickly jot down the three things about the Rockies that they consider most beautiful. Encourage sharing of responses.

INTRODUCTION TO VOCABULARY

Because time sequence figures prominently in this film, learners who are not yet comfortable with words indicating time as well as those students who are acquiring English proficiency will profit from practice prior to viewing. Let those needing such help work individually or in groups to rearrange in time sequence the words in each item below:

autumn	September	morning
summer	January	evening
spring	May	night
winter	March	afternoon

middle	then
begining	first
end	finally

DISCUSSION IDEAS

Use the following to help students examine what they already know as well as prepare them to relate this knowledge to what they will learn.

A family can be defined as “a group of people who live together and care for one another.” What are some things family members do to care for one another?

A community can be defined as “a group of people who all live in the same area and depend on each other in order to survive.” What are some ways that people in a community depend on and help one another?

FOCUS

Use the following to set purpose for viewing.

Beavers belong to the rodent family. Some rodents you may be familiar with are squirrels, mice, rats, guinea pigs, hamsters. Watch for all the ways that beavers are different from the rodents you know about.

JUMP RIGHT IN

HOW TO USE THE **BEAVERS & HOW THEY LIVE** AIMS TEACHING MODULE

Preparation

- ▶ Read *Beavers & How They Live Themes, Overview, and Objectives* to become familiar with program content and expectations.
- ▶ Use Preparation for Viewing suggestions to introduce the topic to students.

Viewing **BEAVERS & HOW THEY LIVE**

- ▶ Set up viewing monitor to accommodate all students.
- ▶ Depending on your classroom size and learning range, you may choose to have students view the program together or in small groups.
- ▶ Some students may benefit from viewing video more than one time.

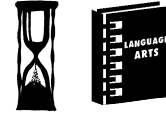
After Viewing **BEAVERS & HOW THEY LIVE**

- ▶ Select Suggested Activities that integrate into your classroom curriculum. If applicable, gather materials or resources.
- ▶ Choose the best way for students to work on each activity. Some activities work best for the whole group. Other activities are designed for students to work independently, in pairs, or in small groups. Whenever possible, encourage students to share their work with the rest of the group.
- ▶ Duplicate the appropriate number of Vocabulary, Checking Comprehension, and consumable activity pages for your students.
- ▶ Depending on your students' and classroom needs, you may choose to have students take consumable activities home or complete them in the classroom.
- ▶ For measured assessment of students' comprehension, and for practice in test-taking procedures, administer the Test.
- ▶ Use the Culminating Activity as a forum for students to display, summarize, extend, or share what they have learned with each other, with the rest of the school, or with a local community organization.

SUGGESTED ACTIVITIES

Connection to Language Arts

Explain that the words herbivore and herbivorous have a Latin root, vorare, "to devour." Present the words carnivore and omnivore, camivorous and omnivorous, and encourage learners to try to figure out meanings without using a dictionary. (Spanish-speaking learners should be able to help with carn; point out how it is used in that language: caritas, chile con carne, carne asada, carniceria.) Ask what other words begin with omni-. Make sure students can pronounce all the words.



10 Minutes

Link to the World

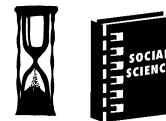
Those interested might work individually or in groups to learn about hunting and trapping laws enacted by various states to protect animals like the beaver. What are arguments for and against these laws? What does poaching mean? Schedule class time for researchers to report to the class.



45 Minutes

Connection to Social Sciences

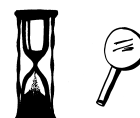
Students might work individually or in groups to learn about careers other than those directly related to the sciences that allow for close observation of life in an ecosystem like that in the video. Help them narrow this topic by suggesting they concentrate on jobs in the National Park System, covering subtopics such as types of jobs available, necessary qualifications, schooling, and so forth. Researchers can share what they have discovered by making a bulletin board that incorporates photos, drawings, and written information.



45 Minutes

Extension

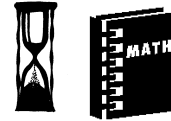
Ask two or more students to research the redwing blackbird, and report their findings to the class. Of special interest might be behavior of these birds when they encounter humans near their nests. (Being dived-bombed by a redwing is unsettling to say the least; stress with students why this happens, drawing parallels with other efforts to protect young.)



20 Minutes

Connection to Math

Those interested in statistics might locate information on the beaver population in the United States from the time such statistics began to be kept to the present day. Have students present their findings on a graph or time line.



30 Minutes

Connection to Health and Nutrition

Explain to the class that a beaver's teeth continue to grow throughout its life. In fact, all that chewing is necessary to keep the teeth from growing so long that the animal is unable to function. Talk about how this differs from human tooth development, leading into a brief discussion of dental hygiene for humans.



15 Minutes

In The Newsroom

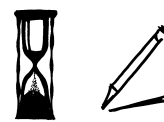
Have writers prepare a feature in the spirit of the more bizarre yet fairly innocuous tabloid newspapers or television shows: "Talking Beavers Found in Rocky Mountain Pond." The article or script should feature all the information students have learned in this module. Reporters can present a newspaper article with suitable visuals or an on-the-spot television interview in which they take the roles of questioner and various members of the beaver family. If students choose the latter approach, consider having them audio- or videotape their presentation.



15–30 Minutes

Writing

The issue of animal rights and the fur lobby is one with which learners probably have at least a glancing familiarity, and, in some parts of the country, very strong opinions indeed. Ask students to tell what they have seen on television or learned elsewhere about this issue. Explain that they will now write a 3-paragraph essay in which they state their opinion about whether animals should be hunted, trapped, or slaughtered for their fur and give reasons for that opinion. When learners have jotted down and organized their ideas, have them write first drafts of their essays. Then have writers work in pairs or small groups to read their drafts aloud, then discuss possible ways to improve or revise their drafts.



45 Minutes

Hands On

If facilities are available, students can create their own miniature beaver lodges with found materials. (Provide guidelines to those assigned to collect materials so that no property is damaged in the process.)



30 Minutes

Meeting Individual Needs

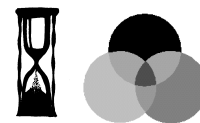
Students who are acquiring English proficiency will profit from another viewing of the video. Set purpose by explaining that when they have finished, they are to write a description, tell you about, or draw a picture of what they liked best in the film. Spend a few minutes with each student to share her or his reaction.



25 Minutes

Cultural Exchange

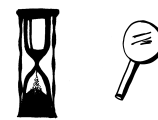
Remind students that the beaver has become a symbol of hard work and purposeful industry, as shown in the comparison “as busy as a beaver.” Ask students of varied racial, ethnic, or cultural backgrounds to find out whether—and how—this animal figures in their own native language, culture, tales and myths. Allow time for sharing with the class.



15 Minutes

Extension

Beavers are known as the engineers of the animal world. Have a group of students research: What makes a beaver dam work? Why are such dams able to withstand the pressure of tons of ice? On what principles is such a dam based? If possible, encourage students who look into this topic to create a three-dimensional model or diorama, and share with classmates.



30 Minutes

Writing

If students have not already done so, have them proofread the final drafts of their essays. Then divide the essays according to those who approve of wearing fur and those who do not. Display each group of essays in the classroom, and allow time for writers to read them. Use questions like these for reflection: Did your own opinion on the topic change at any time in the course of seeing the video or writing the essay? Explain. What was the hardest part of this assignment? The easiest? Explain why you feel as you do.



20 Minutes

Critical Thinking

Remind students that a family can be defined as a group of people who live together and care for one another. Then ask volunteers to suggest ways in which the beaver family is similar to a human family. List these, discussing each as it is suggested.



15 Minutes

Culminating Activity

Have the class prepare a presentation about beavers for a first-grade or kindergarten class. Brainstorm what information to convey and how to best convey it. Let learners themselves take responsibility for various parts of the presentation. After an initial run-through, consider arranging for the class to actually present their program to an appropriate group in your school.



60 Minutes

VOCABULARY

The words below are from *Beavers and How They Live*. Read each word, and look up its meaning in a dictionary. Write the meaning on the line beside the word. Then, on the second line, write a sentence using that word.

nocturnal _____

herbivore _____

incisors _____

scaly _____

predator _____

instinctive _____

offspring _____

mammals _____

ecosystem _____

hibernate _____

CHECKING COMPREHENSION

Tell whether each statement is true or false. Write your answer on the line in front of the number.

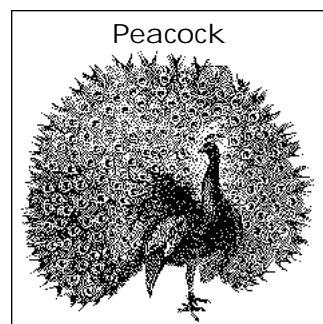
- _____ 1. The video begins in the Rocky Mountains in the winter.
- _____ 2. At the beginning of the video, the beavers are all asleep in their lodge, which is covered by several feet of ice and snow.
- _____ 3. Beavers sleep or rest during the day and are active at night.
- _____ 4. Only male beavers are nocturnal.
- _____ 5. The beaver's hind feet are webbed.
- _____ 6. The beaver's hind feet, tail, ears, and eyes are all built to make it an especially good swimmer.
- _____ 7. Beaver kits are born with their eyes open and already able to swim.
- _____ 8. Beaver kits are on their own from the day they are born, forced to build their own lodges and find food for themselves.
- _____ 9. The father beaver teaches the kits how to build lodges and dams.
- _____ 10. Dams are necessary to keep the water around the lodge from freezing, and they also help the wetland ecosystem.

MAKING COMPARISONS: ANIMALS AND PEOPLE

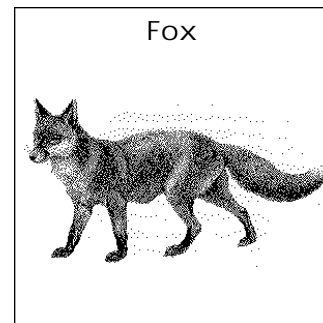
In the video, you learned where the expression “busy as a beaver” comes from. The English language contains many expressions like this one, in which a person is compared to an animal. The result of this kind of comparison is to give a clear and colorful picture of the person. For example, if a friend tells you at the beginning of summer vacation that she is now free as a bird, you might picture an eagle soaring through a blue sky, and you get a good idea of how your friend is feeling.

Read each description below.

The tail of the male peacock is made up of shiny blue, green, and gold feathers. It can be spread out in a fan shape, rising high above the back of the bird. As he spreads his tail, sticks out his chest, and struts about, the peacock seems to know just how beautiful he is—and to be showing off that beauty for all the world to see.



The fox is famous for playing tricks on and escaping from those who try to catch it. Old nursery stories often feature a fox who outsmarts all the other characters by using clever, sneaky tricks.



Choose from the words below to fill in the blank in each comparison. Use a dictionary if necessary.

free sly happy proud stubborn

1. _____ as a peacock 2. _____ as a fox

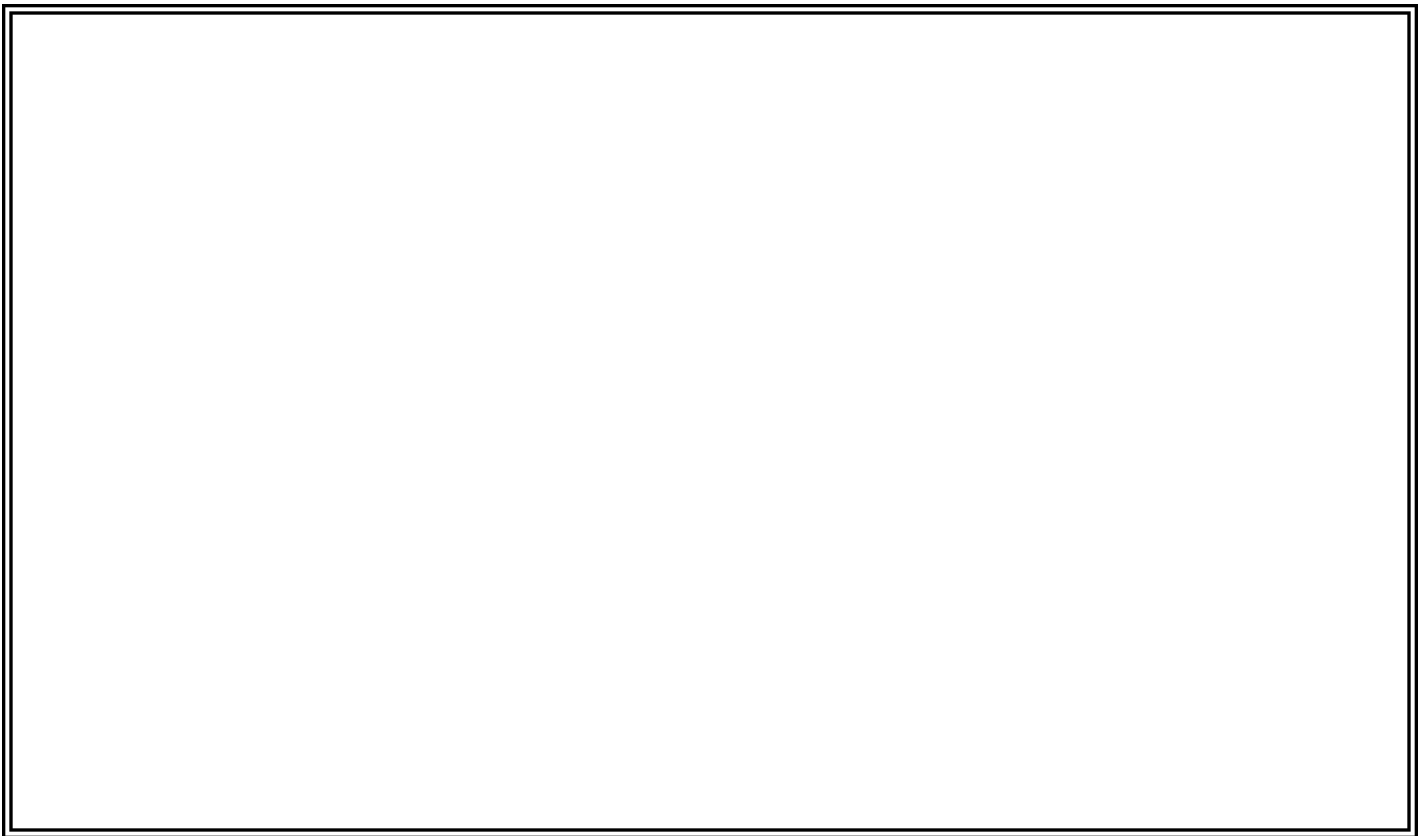
Now think about the characteristics of an animal you know and write a comparison of your own. On the second line, use your comparison in a sentence.

THE FUR DEBATE

In the past the fur of the beaver was in great demand. High-crowned beaver hats for men and beaver coats for both men and women were in fashion. To fill the demand for this fur, trappers sometimes wiped out entire beaver colonies. Today the issue of whether it is all right to wear the fur of either wild or domestic animals is hotly debated. What is your opinion on this issue? On the line below, write your opinion and give some reasons why you feel this way. Then use the rest of the sheet to design a poster that expresses your opinion.

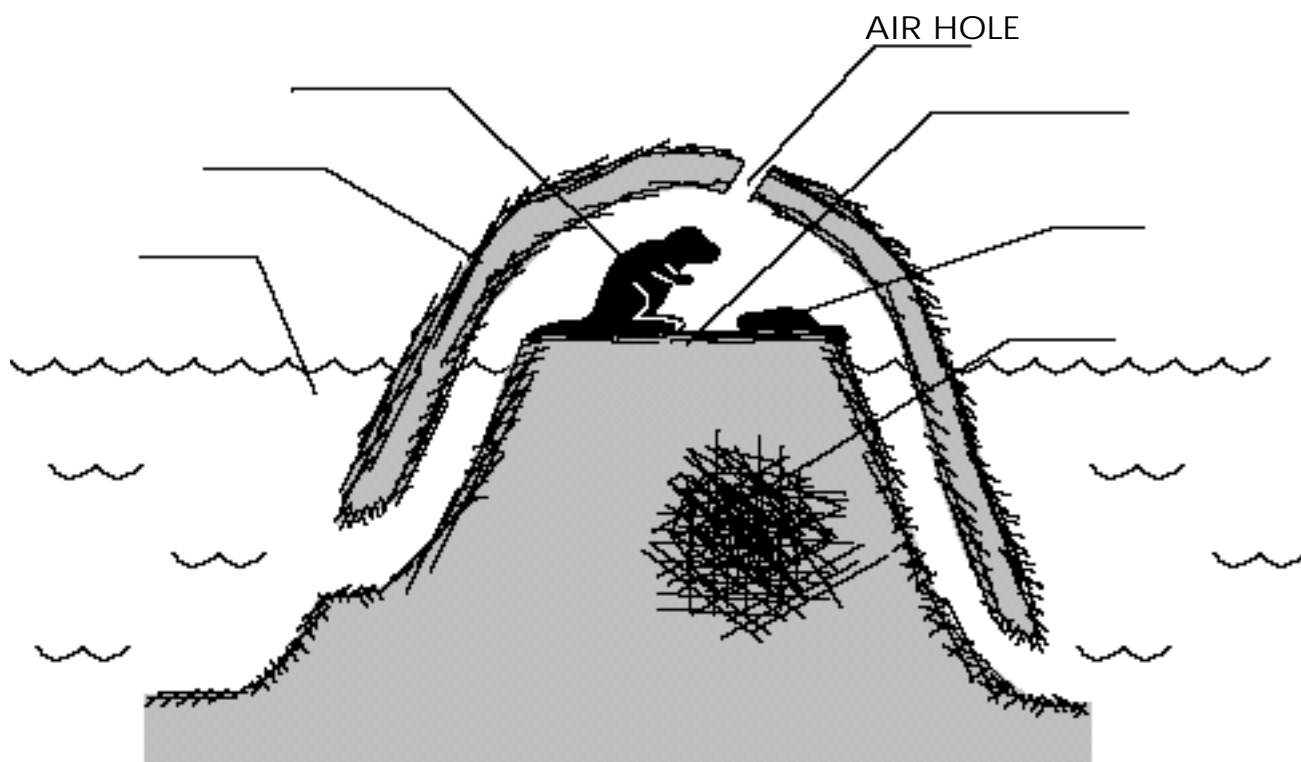
Your Opinion: _____

Reasons for It: _____



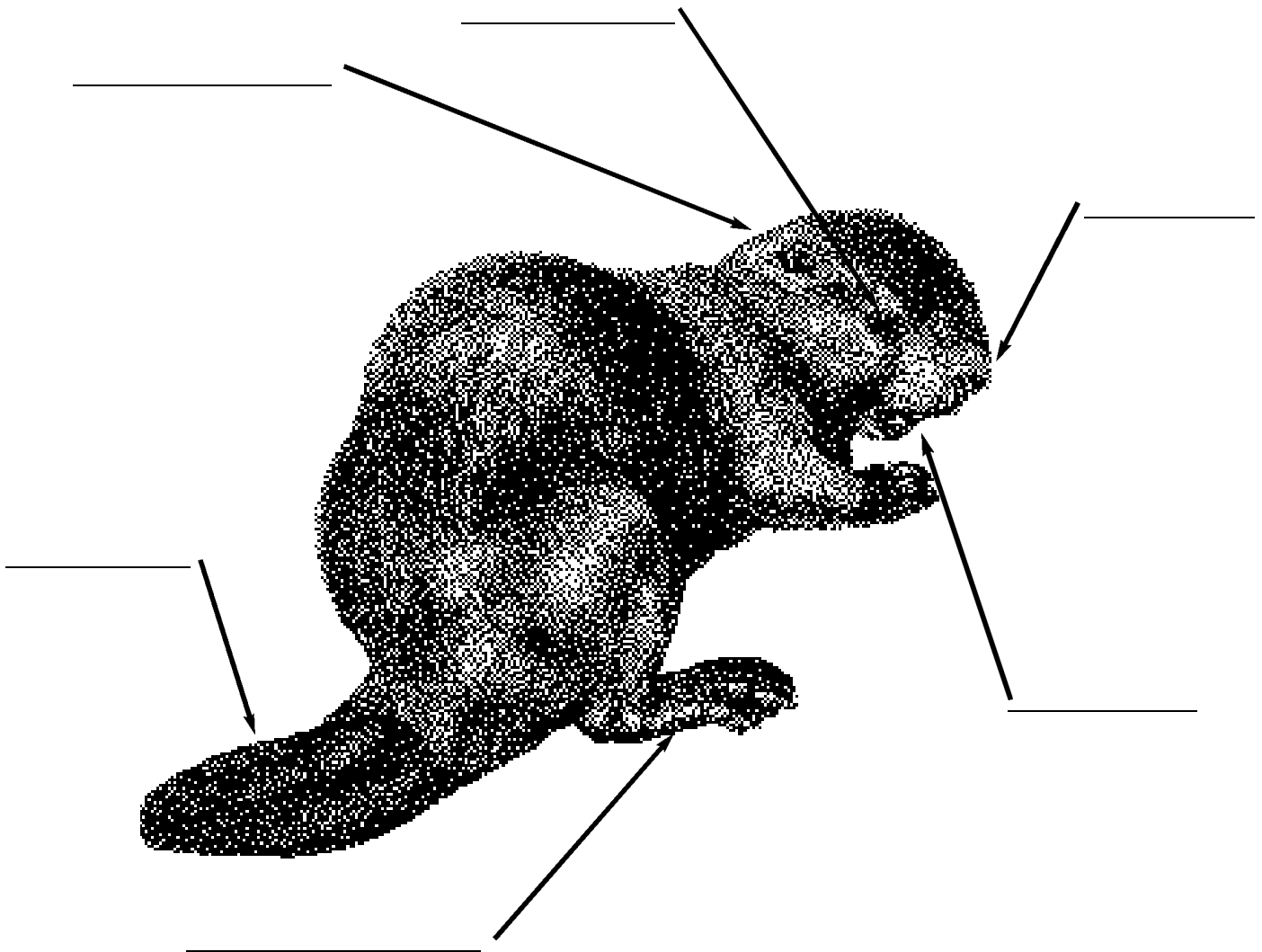
LODGING

The drawing below shows a beaver lodge. Label as many parts of the drawing as you can. One part has been labeled for you.



NAMING OF PARTS

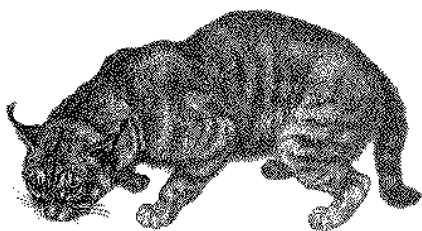
In the video, you learned the ways in which the beaver is especially suited to perform the tasks that it must do in order to have shelter and enough food to eat. On the sketch below, the labels have been left blank. Fill in each label with information about that part of the beaver and what makes this mammal so good at what it does.



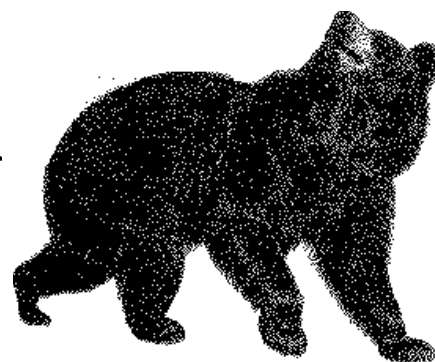
UNFRIENDLY NEIGHBORS

The video mentions several creatures that are natural enemies of the beaver. Use a dictionary, encyclopedia, or other reference source to learn more about each of the creatures pictured below. Write two facts about each animal on the lines under its name.

Lynx



Bear

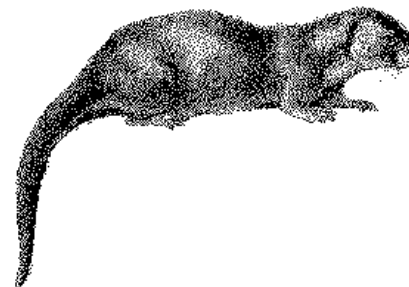


Predators
Enemies of the Beaver

Wolf



River Otter



THE MEANING OF COMPOUND WORDS

Compound words are ones in which two or more smaller words are combined to make a new one. Compounds may be written as one word (evergreen), two words (life span), or a hyphenated word (mini-mall). It is fairly easy to figure out the meaning of such a word without looking it up in a dictionary by examining the words that make up the compound. For example, in the video you are told that in the wild beavers have a life span of twelve to fifteen years. If you know the meaning of the word life, and you know that span can mean "to reach across," you can figure out that the compound word life span must refer to the number of years a creature "reaches across," or lives.

Each italicized word in the sentences below is a compound word from the video. Read the sentence and draw a line under the phrase that best completes it.

1. If a beaver hides in the *underbrush*, it must be
 - A. under the water in the lodge.
 - B. in the small bushes and grass under the trees in the forest.
 - C. grooming a kit with its grooming claw.
 - D. feeling sick.

2. A beaver standing upright must
 - A. have all four feet and its tail on the ground.
 - B. be showing off.
 - C. be balancing on its hind legs.
 - D. be hibernating.

3. If a beaver kit is too lightweight to dive, it needs
 - A. to grow bigger, gain weight.
 - B. a good grooming.
 - C. a lodge of its own.
 - D. lessons.

4. A redwing blackbird is
 - A. an impossibility.
 - B. a bird with a dark body and red wings.
 - C. a predator.
 - D. a red bird with dark wings.

5. Beavers help maintain the wetland ecosystem by
 - A. building dams and keeping them in good repair.
 - B. preying on the redwing blackbird.
 - C. hunting wolves and wolverines.
 - D. building lodges.

NOCTURNE

You already know that beavers are nocturnal creatures, that they rest or sleep during the daylight hours and do their work at night. The drawing below shows the beaver's nighttime world. The list of creatures contains some that are nocturnal and others that are not. Use an encyclopedia or other reference source to find out which ones are nocturnal. Then write the name of each nocturnal animal in a suitable place on the drawing. (Or draw a picture of the animal and label it.) One has been done for you.

owl
horse

mouse
raccoon

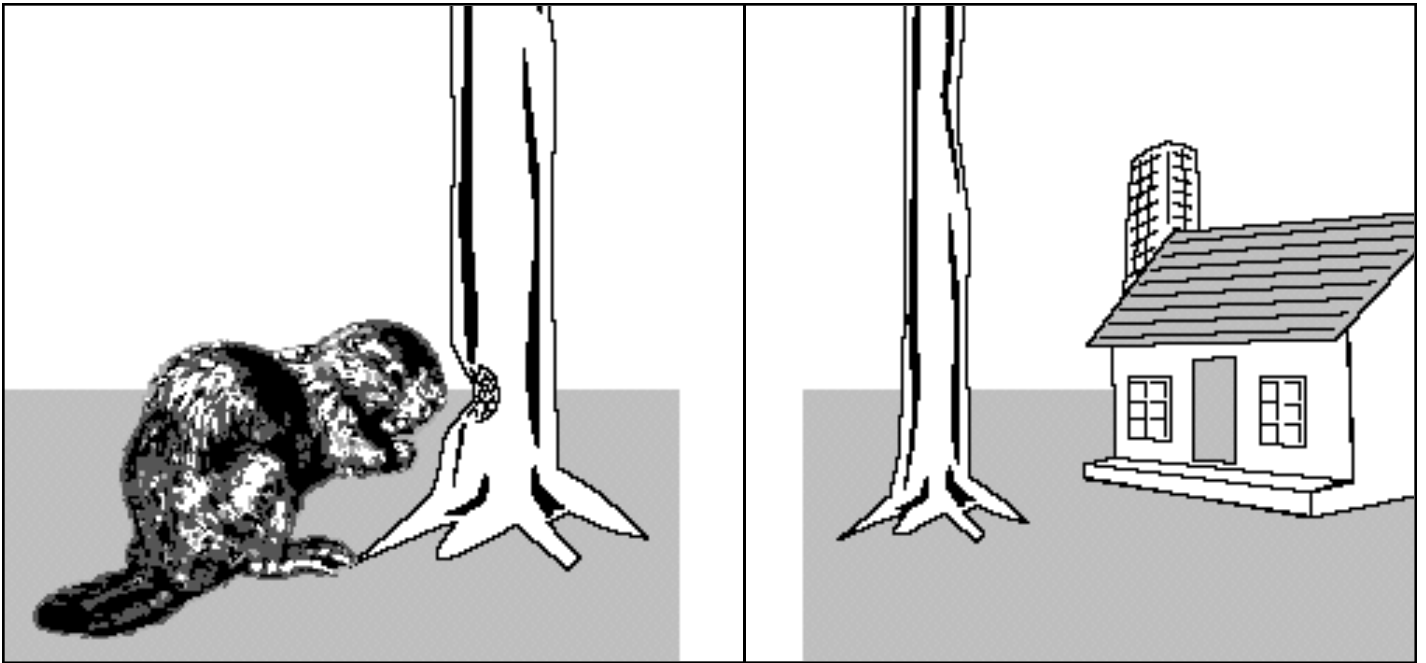
redwing blackbird
opossum

OWL

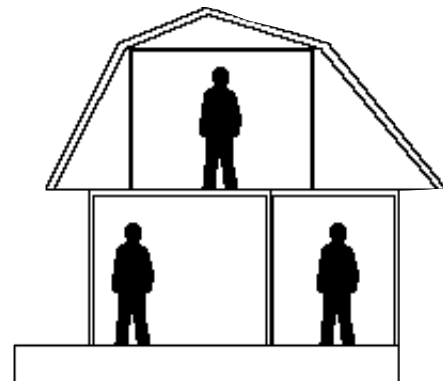
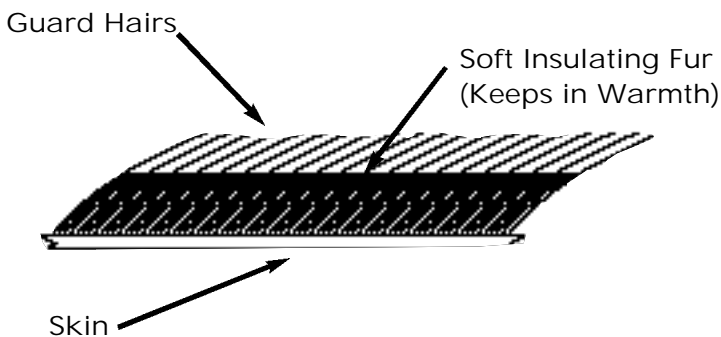


A CLOSER LOOK

Beavers chomp away at the side of the tree that they can most easily get to. Because of this, they don't have any control over where the tree falls. This is shown in the picture to the left. Suppose you were cutting down the tree in the picture on the right. Show on the drawing where you would start cutting to make sure that the tree did not fall on the house.



The sketch on the left shows a cross-section of the beaver's coat. Which layer traps body heat and keeps the beaver warm? In the drawing of the house, where would you put a layer of insulation, or insulating material, to help keep the house warm? Mark this on the drawing.



CHECKING VOCABULARY

Draw a line to connect the vocabulary word to its definition.

hibernate

plant-eating

instinctive

babies

predator

large front teeth

herbivore

sleep through the winter

nocturnal

plant and animal life

scaly

not learned

ecosystem

be awake at night

incisors

covered with scales

offspring

warm-blooded animals

mammals

natural enemy

TEST

Read each statement below and the four possible ways to complete it. Then choose the item that best completes the statement. Write the letter of your choice on the line in front of the number.

- _____ 1. Beavers are among the largest _____ in North America.
A. swimmers B. rodents C. mammals D. people
- _____ 2. Beavers are good swimmers because of their _____.
A. weight B. kits C. hind feet D. lodges
- _____ 3. Beavers use their tails for _____.
A. stools B. swimming C. sending warnings D. all of these
- _____ 4. Beaver kits usually stay with their parents for about _____ years.
A. one B. two C. twelve to fifteen D. thirty
- _____ 5. Beavers are herbivores, which means they eat _____.
A. only plants B. both plants and animals C. seasonings like oregano and garlic D. fur
- _____ 6. The only entrances to the beaver's home are _____.
A. under water B. hidden in the trees C. sealed up with concrete D. under beaver dams
- _____ 7. A beaver's home is called its _____.
A. castle B. dam C. lodge D. clubhouse
- _____ 8. Tree bark, twigs, and leaves are all part of a beaver's _____.
A. lodge B. diet C. building materials D. all of these
- _____ 9. In winter, beavers _____.
A. cut down trees B. remove splinters from their mouths and eyes C. build bigger dams
D. eat food they have stored at the bottom of the pond
- _____ 10. The beavers' efforts _____.
A. provide a habitat for other creatures B. keep streams free of ice all year round
C. ruin the environment D. don't make any sense.

ADDITIONAL AIMS MEDIA PROGRAMS

If you and your students enjoyed learning about Evolution, you will also enjoy:

How We Classify Animals – 8205AT

How Animals Survive – 8206AT

Animal Communities – 8207AT

Ecosystems: Nature in Balance – 8559AT

Trapping and the Fur Trade – 8616AT

A User's Guide to Planet Earth: The American Environment Test – 8584AT

The Wetlands – 8234AT

ADDITIONAL READING SUGGESTIONS

Your students may enjoy reading:

Grey Owl. Sajo and the Beaver People. Scribner, 1971.

Grimm, Jacob and Wilhelm. The Incredible Journey; (Illustrated by Maurice Sendak.) Farrar, Straus & Giroux, 1973.

Miska, Miles. Beaver Moon. Little, Brown, 1978.

ANSWER KEY for page 19

_____ Name

VOCABULARY

The words below are from *Beavers and How They Live*. Read each word, and look up its meaning in a dictionary. Write the meaning on the line beside the word. Then, on the second line, write a sentence using that word.

nocturnal AWAKE AND ACTIVE AT NIGHT, ASLEEP DURING THE DAY

herbivore PLANT EATING

incisors LARGE FRONT TEETH

scaly COVERED WITH SCALES, LIKE A FISH

predator NATURAL ENEMY, CREATURE THAT PREYS ON, OR HUNTS
ANOTHER

instinctive NOT LEARNED, INBORN

offspring THE YOUNG, BABIES, KITTENS, ETC.

mammals WARM-BLODDED ANIMALS WITH BACKBONES WHO ARE
NOURISHED BY THE MOTHER'S MILK

ecosystem AN AREA WHERE PLANTS AND ANIMALS LIVE TOGETHER AND
DEPEND ON ONE ANOTHER

hibernate SPEND THE WINTER SLEEPING

ANSWER KEY for page 20

_____ Name

CHECKING COMPREHENSION

Tell whether each statement is true or false. Write your answer on the line in front of the number.

- FALSE 1. The video begins in the Rocky Mountains in the winter.
- FALSE 2. At the beginning of the video, the beavers are all asleep in their lodge, which is covered by several feet of ice and snow.
- TRUE 3. Beavers sleep or rest during the day and are active at night.
- FALSE 4. Only male beavers are nocturnal.
- TRUE 5. The beaver's hind feet are webbed.
- TRUE 6. The beaver's hind feet, tail, ears, and eyes are all built to make it an especially good swimmer.
- TRUE 7. Beaver kits are born with their eyes open and already able to swim.
- FALSE 8. Beaver kits are on their own from the day they are born, forced to build their own lodges and find food for themselves.
- FALSE 9. The father beaver teaches the kits how to build lodges and dams.
- TRUE 10. Dams are necessary to keep the water around the lodge from freezing, and they also help the wetland ecosystem.

ANSWER KEY for page 21

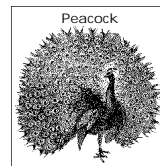
_____ Name

MAKING COMPARISONS: ANIMALS AND PEOPLE

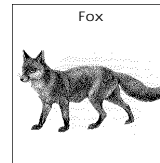
In the video, you learned where the expression “busy as a beaver” comes from. The English language contains many expressions like this one, in which a person is compared to an animal. The result of this kind of comparison is to give a clear and colorful picture of the person. For example, if a friend tells you at the beginning of summer vacation that she is now free as a bird, you might picture an eagle soaring through a blue sky, and you get a good idea of how your friend is feeling.

Read each description below.

The tail of the male peacock is made up of shiny blue, green, and gold feathers. It can be spread out in a fan shape, rising high above the back of the bird. As he spreads his tail, sticks out his chest, and struts about, the peacock seems to know just how beautiful he is—and to be showing off that beauty for all the world to see.



The fox is famous for playing tricks on and escaping from those who try to catch it. Old nursery stories often feature a fox who outsmarts all the other characters by using clever, sneaky tricks.



Choose from the words below to fill in the blank in each comparison. Use a dictionary if necessary.

free sly happy proud stubborn

1. PROUD as a peacock 2. SLY as a fox

Now think about the characteristics of an animal you know and write a comparison of your own. On the second line, use your comparison in a sentence.

RESPONSES WILL DIFFER; POSSIBILITIES INCLUDE AS QUICK AS A CAT; AS QUIET

AS A MOUSE; STUBBORN AS A MULE. ACCEPT ALL COMPARISONS THAT THE

STUDENTS CAN EXPLAIN

ANSWER KEY for page 22

_____ Name

FUR DEBATE

In the past the fur of the beaver was in great demand. High-crowned beaver hats for men and beaver coats for both men and women were in fashion. To fill the demand for this fur, trappers sometimes wiped out entire beaver colonies. Today the issue of whether it is all right to wear the fur of either wild or domestic animals is hotly debated. What is your opinion on this issue? On the line below, write your opinion and give some reasons why you feel this way. Then use the rest of the sheet to design a poster that expresses your opinion.

Your Opinion: RESPONSES WILL DIFFER. ACCEPT ALL THAT STUDENTS CAN

SUPPORT WITH REASONS

Reasons for It: _____

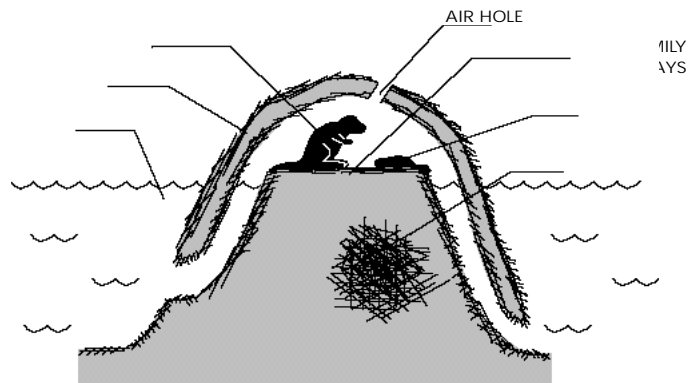


ANSWER KEY for page 23

_____ Name

LODGING

The drawing below shows a beaver lodge. Label as many parts of the drawing as you can. One part has been labeled for you.

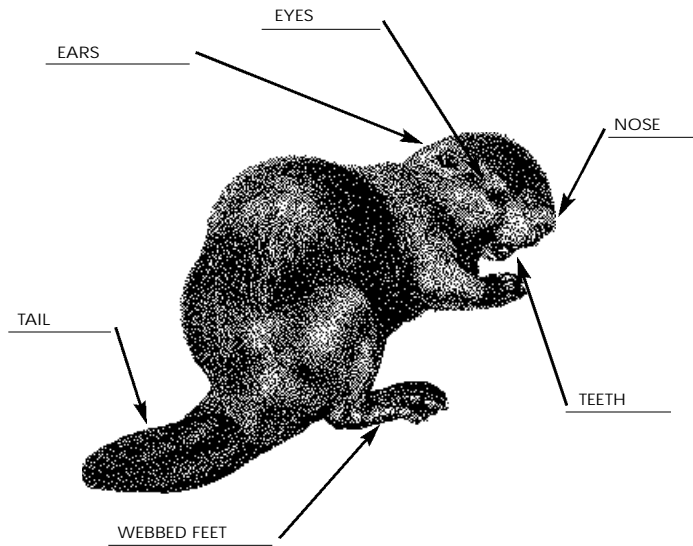


ANSWER KEY for page 24

_____ Name

NAMING OF PARTS

In the video, you learned the ways in which the beaver is especially suited to perform the tasks that it must do in order to have shelter and enough food to eat. On the sketch below, the labels have been left blank. Fill in each label with information about that part of the beaver and what makes this mammal so good at what it does.



ANSWER KEY for page 25

_____ Name

UNFRIENDLY NEIGHBORS

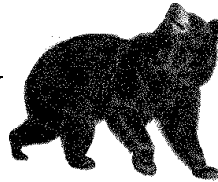
The video mentions several creatures that are natural enemies of the beaver. Use a dictionary, encyclopedia, or other reference source to learn more about each of the creatures pictured below. Write two facts about each animal on the lines under its name.

Lynx



A TYPE OF WILDCAT; SHORT TAIL; TUFTS OF FUR AT THE TIPS OF ITS EARS; SHAGGY FUR; ABOUT 3 FT LONG

Bear



EATS BOTH MEAT AND VEGETATION; COARSE THICK FUR; FLAT FEET; VERY SHORT TAIL; UP TO 5 FT HIGH AT THE SHOULDER

Predators
Enemies of the Beaver

Wolf



MEAT-EATING; WILD MEMBER OF THE DOG FAMILY; LONG NOSE; HIGH POINTED EARS; BUSHY TAIL; RUNS IN PACKS

River Otter



WEBBED FEET; MEAT EATING; UP TO 4 FT LONG; RELATIVE OF MINKS AND WEASELS

ANSWER KEY for page 26

_____ Name

THE MEANING OF COMPOUND WORDS

Compound words are ones in which two or more smaller words are combined to make a new one. Compounds may be written as one word (evergreen), two words (life span), or a hyphenated word (mini-mall). It is fairly easy to figure out the meaning of such a word without looking it up in a dictionary by examining the words that make up the compound. For example, in the video you are told that in the wild beavers have a life span of twelve to fifteen years. If you know the meaning of the word life, and you know that span can mean "to reach across," you can figure out that the compound word life span must refer to the number of years a creature "reaches across," or lives.

Each italicized word in the sentences below is a compound word from the video. Read the sentence and draw a line under the phrase that best completes it.

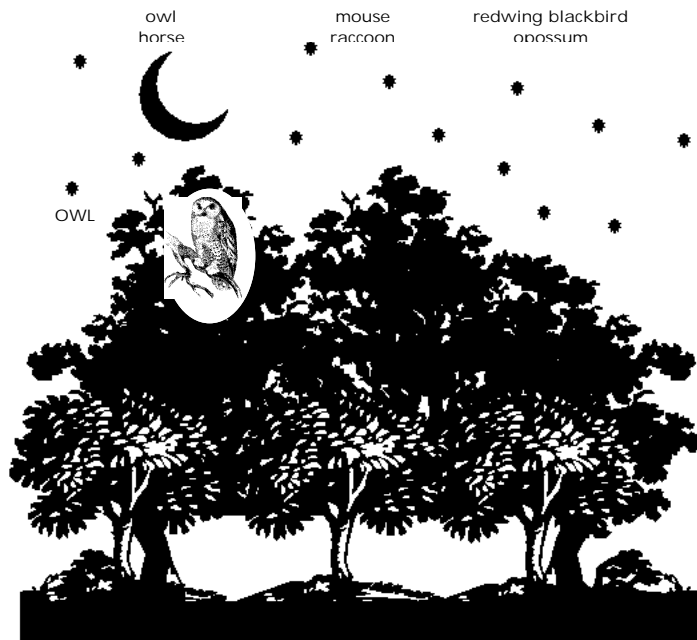
1. If a beaver hides in the *underbrush*, it must be
 - A. under the water in the lodge.
 - B. in the small bushes and grass under the trees in the forest.
 - C. grooming a kit with its grooming claw.
 - D. feeling sick.
2. A beaver standing upright must
 - A. have all four feet and its tail on the ground.
 - B. showing off.
 - C. balancing on its hind legs.
 - D. hibernating.
3. If a beaver kit is too *lightweight* to dive, it needs
 - A. to grow bigger, gain weight.
 - B. a good grooming.
 - C. a lodge of its own.
 - D. lessons.
4. A *redwing* blackbird is
 - A. an impossibility.
 - B. a bird with a dark body and red wings.
 - C. a predator.
 - D. a red bird with dark wings.
5. Beavers help maintain the wetland ecosystem by
 - A. building dams and keeping them in good repair.
 - B. preying on the redwing blackbird.
 - C. hunting wolves and wolverines.
 - D. building lodges.

ANSWER KEY for page 27

_____ Name

NOCTURNE

You already know that beavers are nocturnal creatures, that they rest or sleep during the daylight hours and do their work at night. The drawing below shows the beaver's nighttime world. The list of creatures contains some that are nocturnal and others that are not. Use an encyclopedia or other reference source to find out which ones are nocturnal. Then write the name of each nocturnal animal in a suitable place on the drawing. (Or draw a picture of the animal and label it.) One has been done for you.

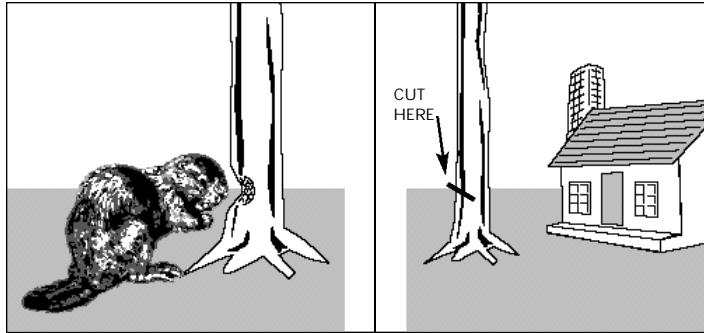


ANSWER KEY for page 28

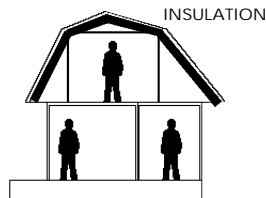
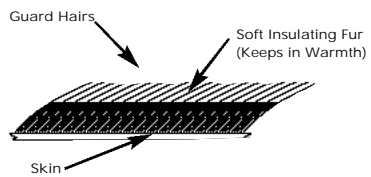
_____ Name

A CLOSER LOOK

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ANSWER KEY for page 29

_____ Name

CHECKING VOCABULARY

Draw a line to connect the vocabulary word to its definition.

hibernate	plant-eating
instinctive	babies
predator	large front teeth
herbivore	sleep through the winter
nocturnal	plant and animal life
scaly	not learned
ecosystem	be awake at night
incisors	covered with scales
offspring	warm-blooded animals
mammals	natural enemy

ANSWER KEY for page 30

_____ Name

TEST

Read each statement below, including the four possible ways to complete it. Then choose the item that best completes the statement. Write the letter of your choice on the line in front of the number.

- B 1. Beavers are among the largest _____ in North America.
A. swimmers B. rodents C. mammals D. people
- C 2. Beavers are good swimmers because of _____.
A. their weight B. their kits C. their hind feet D. their lodges
- D 3. Beavers use their tails for _____.
A. stools B. swimming C. sending warnings D. all of these
- B 4. Beaver kits usually stay with their parents for about _____ years.
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- A 6. The only entrances to the beaver's home are _____.
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- C 7. A beaver's home is called its _____.
A. castle B. dam C. lodge D. clubhouse
- D 8. Tree bark, twigs, and leaves are all part of a beaver's _____.
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- D 9. In winter, beavers _____.
A. cut down trees B. remove splinters from their mouths and eyes C. build bigger dams
D. eat food they have stored at the bottom of the pond
- A 10. The beavers' efforts _____.
A. help provide a habitat for other creatures B. keep streams free of ice all year round
C. ruin the environment D. don't make any sense.