

STUDY QUESTIONS

TO “COOL CRITTERS”

Study and learn facts and ideas based on this Young Naturalists nonfiction story in *Minnesota Conservation Volunteer*, July–August 2017, www.mndnr.gov/mcvmagazine.

Minnesota Conservation Volunteer magazine is your guide to wild things. Every other month, six times a year, the magazine arrives in your school library. Each one has a story for Young Naturalists like you. **Are you curious about wild things?** Young Naturalists tells true stories that can answer all kinds of questions such as these—

Have you ever heard of a purple wartyback? How about a pink heelsplitter, pimple-back, or monkeyface? All are Minnesota freshwater mussels. Read Young Naturalists stories to learn which species (kinds) of critters live in Minnesota—frogs, salamanders, snakes, wild cats, wild dogs, weasels, mice, and rabbits.

Want to **peek inside the den of a red fox** and see how the kits grow up? Are you a rock hound searching for agates? Have you ever wondered what’s alive under snow? How animals see? Why is a bluebird blue? How birds fly?

Would you like to hear the true story of **giants of the ice age**? Young Naturalists also tells you about the underground universe. You can read the story of a tiny owl that went to a hospital with an injured wing. Find out about a boy who worked in a logging camp. Read the story of Ojibwe children today hunting and gathering like their ancestors did.

Learn how to get started **camping, snowshoeing, ice fishing, or canoeing**.

Find these stories and more online at www.mndnr.gov/young_naturalists.

Your knowledge of wild things helps you explore and enjoy the outdoors. Have fun!

“COOL CRITTERS” STUDY QUESTIONS

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1. HOW DOES A NESTING GULL BEAT THE HEAT ON A SUNNY DAY?

2. HOW DOES PANTING HELP AN ANIMAL STAY COOL?

3. NAME THREE KINDS OF MINNESOTA BIRDS THAT PANT. _____

4. DESCRIBE THREE WAYS YOU STAY COOL ON A HOT SUMMER'S DAY.

5. NAME FOUR KINDS OF BIRDS THAT USE GULAR FLUTTERING TO STAY COOL.

6. IF A BIRD PERFORMED 420 GULAR FLUTTERS PER MINUTE, HOW MANY WOULD THAT BE PER SECOND? _____

7. THE PROCESS OF COOLING OFF BY TOUCHING SOMETHING COOL IS CALLED:

- A. evaporation
- B. radiation
- C. conduction
- D. estivation

8. TRUE OR FALSE: CORMORANTS, PELICANS, AND OTHER BIRDS USE BLOOD VESSELS IN THEIR EARS TO RADIATE HEAT FROM THEIR BODIES. _____

9. ARE FISH COLD-BLOODED OR WARM-BLOODED? _____

10. NAME FOUR KINDS OF ANIMALS THAT ESTIVATE: _____

10. WHAT IS THE MAIN DIFFERENCE BETWEEN HIBERNATION AND ESTIVATION? _____

11. NAME FIVE KINDS OF ANIMALS THAT TAKE BATHS TO STAY COOL:

12. TWO COOLING STRATEGIES THAT TAKE ADVANTAGE OF EVAPORATION ARE _____ AND _____.

CHALLENGE: BASED ON WHAT YOU LEARNED IN THIS STORY, WHY DOES A FAN HELP YOU FEEL COOLER?

MINNESOTA COMPREHENSIVE ASSESSMENT

NAME _____ PERIOD _____ DATE _____

1. WHICH OF THESE ANIMALS DOES NOT SWEAT?

- A. Humans
- B. Horses
- C. Gorillas
- D. Deer

2. A HERRING GULL SITS IN A SPECIAL WAY THAT MINIMIZES THE AMOUNT OF SUNLIGHT THAT HITS IT. WHAT IS THE ANTONYM OF MINIMIZE?

3. THE OBELISK POSTURE IS:

- A. A small cavity in a rock that a snake uses to shade itself in hot weather
- B. A pose a dragonfly takes to help minimize exposure to the sun
- C. The way a squirrel spreads itself out on a tree branch
- D. A fox's posture when it is panting.

4. WHAT IS CONDUCTION?

5. IF A LAKE OR STREAM GETS TOO WARM, A COLD-WATER FISH SPECIES MAY NO LONGER BE ABLE TO LIVE IN IT. WHAT MIGHT HAPPEN TO IT INSTEAD?

STUDENT STUDY GUIDE: VOCABULARY

EVAPORATION the process by which a liquid turns into a gas

LOAF relax

LACED covered with a lacelike pattern

MINIMIZE get or make the least of

OBELISK a tall, thin pillar

PARASITE a living thing that benefits from another living thing in a way that harms the host

POSTURE the way an animal holds its body

SUNDIAL an object that uses a shadow cast by the sun to tell time

VISOR a flat object that provides shade

VOLE a small, mouselike mammal

STUDENT STUDY GUIDE: VOCABULARY CARDS

Cut along 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

WHEN A LIQUID TURNS
TO GAS, it undergoes

FOLD

EVAPORATION is

When animals LOAF, they

FOLD

When animals RELAX, they

An object that is LACED is

FOLD

An object that
is COVERED WITH A
LACELIKE PATTERN
is said to be

If you MINIMIZE
SOMETHING, you

FOLD

To MAKE THE LEAST
OF SOMETHING is to

AN OBELISK is

FOLD

A TALL, THIN TOWER
is also known as

A **PARASITE** is

FOLD

**A LIVING THING THAT
BENEFITS FROM ANOTHER
LIVING THING IN A WAY
THAT HARMS THE HOST** is

**THE WAY AN ANIMAL HOLDS
ITS BODY** is called its

FOLD

POSTURE is

**AN OBJECT THAT USES A
SHADOW CAST BY THE SUN
TO TELL TIME** is called a

FOLD

A SUNDIAL is

What is a **VISOR**?

FOLD

**A FLAT OBJECT THAT PROVIDES
SHADE** is known as a

A **VOLE** is

FOLD

**A SMALL, MOUSELIKE
MAMMAL** is called

FOLD