



# NATURE GLANCE:

Keeping warm with fur



Name:

Class period:

Date:

Winter is an excellent time to explore and observe nature. River otters, a member of the weasel family, are one of the species that thrive in cold weather. They can often be seen fishing or traveling along riverbanks during winter. They have 373,000 hairs per square inch in their fur, which is very dense compared to humans' 1,250 hairs per square inch. Their fur keeps them warm while swimming and hunting for prey like fish, frogs, crayfish and even turtles.



In Michigan, river otters are considered a furbearing species. People can purchase a furbearer license to trap up to four otters per season because their pelts can be made into warm hats or mittens. This practice is regulated by the Department of Natural Resources because trapping helps maintain balanced wildlife populations and ensures the longterm survival of these species. Revenue from trapping license sales also supports improvements to wildlife habitats on public land throughout the state.

### THINK ABOUT IT:

Why is it important that humans help balance wildlife populations like for the river otter shown above?

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### THREE DETAILS ABOUT OTTERS

### TWO QUESTIONS ABOUT OTTERS

### ONE SENTENCE ARTICLE SUMMARY

1.

2.

3.

1.

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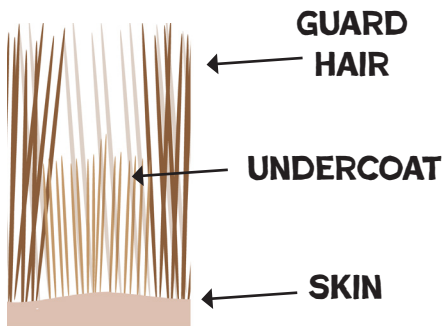
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# CHANGING WITH THE SEASONS

As seasons change, the fur of white-tailed deer adapts accordingly. In summer, they have reddish fur with short guard hairs and a light undercoat. This keeps them cool and protects them from insects.

In winter, their fur transforms and they develop a thick undercoat and longer guard hairs. The undercoat traps air for insulation, while the hollow guard hairs provide additional warmth and protection against snow. Their coat also turns gray or dark brown, which absorbs more sunlight and keeps the deer warmer than if it were a lighter color.



## REVIEW QUESTIONS

1. What color is deer fur during the summer? Why?

2. What color is deer fur during the winter? Why?

# LOOK CLOSER



ELK

GRAY FOX

WHITE-TAILED DEER

WOLF

What do you notice about the different types of fur?

What do you wonder about the different types of fur?

# ACTIVITY

Study heat loss using jars of water under different variables!

**You will need:** Four Mason jars, cotton balls, a box that is 2 inches larger than a jar, a stretchable sock, a measuring cup, a container filled with ice or snow and a thermometer.

**Steps:**

1. Cover the bottom of a box with cotton balls.
2. Fill each jar with two cups of warm water. Record the starting temperature and cover jars with lids.
3. Place one jar in the box and cover with cotton balls. Cover the second jar with a sock. Leave the third jar at room temperature, and place the final jar in a container surrounded by snow or ice.
4. Wait 10 minutes. Uncover the jars and record the temperatures.
5. Repeat collecting temperature reading to compare the loss of heat over time.

**Discuss:**

What did you notice about heat loss during this experiment?

Are there other insulating materials you would like to try? Why?