

ARCTIC ECOSYSTEM LABS

Name _____ Date _____

Permafrost Activity

1. What will happen to your structure after it is placed on melting permafrost?
Write a hypothesis (an educated guess).

2. Explain your hypothesis. Why do you think this will happen?

3. After three days describe what happened. Was your hypothesis right?

Caribou Carrying Capacity

1. An average caribou weighs 189 kg and eats 2% of its body weight every day. Calculate how much (in kg) a caribou eats every day, every month and every year.

Every day: $189 \times 0.02 =$ _____

Every month: $189 \times 0.02 \times 30 =$ _____

Every year: $189 \times 0.02 \times 365 =$ _____

2. If an average herd has 50 caribou, how much does one herd eat in a day?

3. Cows also eat about 2% of their body weight every day. Do you think a cow needs more or less space to get enough food? Write down your hypothesis, an educated guess.

4. Explain your hypothesis. Why do you think this is true?

5. Were you right? Which animal needs more space?

6. Write a conclusion that explains how sensitive the tundra is as a habitat for animals like caribou.

Blubber, Feathers and Fur

1. Which do you think will protect animals best from the cold: blubber, feathers, or fur?

2. Explain your hypothesis. Why do you think this will happen?

3. Collect data below:

Covering Type	Temp. Before	Temp. After	Difference
Fur			
Feather			
Blubber			

3. Describe what happened. Was your hypothesis right?

4. Write a conclusion that explains what this means for tundra animals.
