

The Bear who Loves Chocolate¹

By Steve Ferree

There are a lot of bears in Alaska. They eat grass, roots, berries, and animals that have died, including ground squirrels, caribou, foxes, fish and wolves. They also walk into freezing cold Alaska streams where they love to catch and eat salmon. In other words, they eat pretty much everything although they probably don't eat skunks or porcupines.

Why do you think a bear would not eat a skunk or porcupine?

In the winter, bears find a den (protected place) and go into a deep, long sleep called hibernation that lasts 2 months or more. Bears are stiff and **HUNGRY** when they wake up. They can also be grumpy! In order to survive through their long winter sleep, they must build up a lot of fat. A big grizzly bear can gain 250 pounds or more in the months before going into hibernation. The photo on the left shows a bear waking up from hibernation (Yawn...), and the bear on the right is about to go into hibernation in December. **Which one is fatter?**



Grizzly waking up in Spring



Grizzly about to Hibernate

If a grizzly goes from 380 pounds when she wakes up in the spring to 520 pounds just before going into hibernation in December, how much weight has she gained?

What is the percent of weight gain rounded to the nearest tenth of a percent?

Tomas Martinez owns a cabin on a high mountain lake in the Alaska Range. The shortest day of the year there only has sun for 3 hours and the longest day of the year has sunlight for 21 hours. In the winter, the sun is always low on the horizon and the sunlight is very weak.

About how many hours of daylight is there today in Santa Fe? (Hint: Start by estimating when the sun comes up and goes down.)

¹ Suggested Grades: 4-6 Skills: Subtraction of integers, percent, rounding, time, division involving decimals, drawing, area of a rectangle

Why do the number of hours of daylight change from summer to winter?

Early one morning, Tomas received a phone call from a fellow cabin owner who said that a grizzly bear had gotten into some cabins. Tomas packed a lunch and drove the 170 miles to the cabin.

If he drove at an average speed of 60 miles per hour, how long did the drive take him? Round to the nearest tenth of an hour.

At the lake, Tomas discovered that a bear had been inside a neighbor's cabins and torn it up by bending the heavy metal door, turning the table over, breaking cabinet doors, and breaking two windows.

Use your imagination to draw a picture of the inside of the torn up cabin.

Tomas cautiously ran to his cabin – the bear might be in the was closed but the large window next to it was pushed open. down Tomas' spine when he saw the large, muddy foot print door. Thinking the bear might still be in the cabin, he yelled and help himself feel brave. But the bear was gone.



cabin. The front door
A shiver ran up and
just inside the front
out to warn the bear

Near the lake were two pieces of aluminum foil flattened out and very clean. Some brown powder was scattered about on the snow around the aluminum foil along with more big bear foot prints and a rounded out place in the snow where the big, heavy bear had sat down on his big rump. Tomas laughed when he realized that the brown powder was hot chocolate mix. The bear had pushed the front window open ripping the screws out of the wall, gone into the kitchen where it picked up one can of chocolate mix and had taken it to the lake. There he tore open the can and licked the chocolate off of the aluminum foil.

Then, the bear went back into the cabin the same way so he didn't tear a hole in the wall or anything, grabbed the other can of hot chocolate mix, brought it back to the same spot, tore open that can and licked the foil from that can clean too. This bear LOVED chocolate. They decided to nickname the bear: CHOCOLATE.

How did Tomas figure out the bear made two trips into the cabin? (Hint: How many cans of chocolate can a bear carry at a time?)

How did Tomas know the bear opened the cans by the lake? (Hint: What happens if you roughly tear open a big can of powdered chocolate?)

The aluminum foil measured 9 inches by 24 inches. Assume that one lick of bear's tongue would cover 3 inches by 8 inches of the foil. Find the minimum number of times the bear had to lick the foil before it was clean. Remember, there were 2 cans both with aluminum foil.

Draw a picture of the bear licking the chocolate mix off of the aluminum foil. The bear can be standing on all four legs or sitting down and licking.