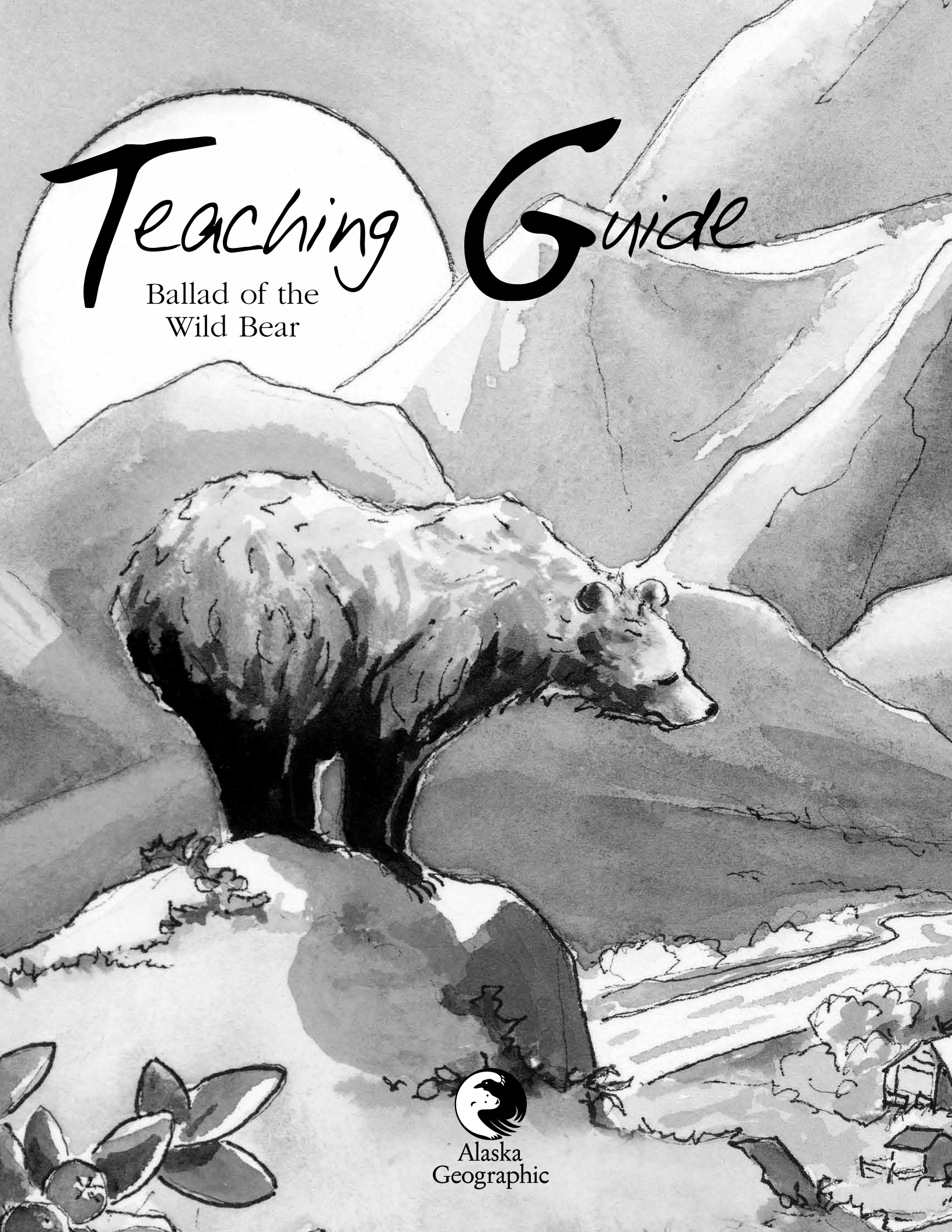


Teaching Guide

Ballad of the
Wild Bear



Alaska
Geographic



Keeping Bears Wild and People Safe

A few years ago in Talkeetna, Alaska, a group of bear-aware people formed the Bear Necessities Coalition (BNC) with the goal of fostering human behavior in our community (and beyond) that would help keep bears wild and people safe. *Ballad of the Wild Bear* is the brainchild of two BNC members, written and illustrated to get this message to young people.

This guide can help teachers use the book to encourage a bear-aware outlook in students. Target grades are K-4, but activities can be adapted for older students and many of the suggested resources include activities for students of all ages. The guide includes background information and suggestions for student activities to help teachers use the book in a short, two to five day unit. For those who want to do a longer, more in-depth study of bears and bear awareness (which we strongly encourage), you will find a list of resources at the end of the guide. Many of these are available at little or no cost.

This guide is organized around three objectives: Appreciation—students will develop an understanding of and appreciation for bears and bear behavior in their natural wilderness habitat; Awareness—students will become aware of ways in which human behavior can negatively impact bears and threaten bear survival; Action—students will identify actions and behaviors that people can take to ensure that bears remain wild and people remain safe.

—Ellen Wolf

School teacher Ellen Wolf has created and implemented curriculum for elementary and middle school students in Talkeetna, Alaska for more than twenty years. Experience has taught her that children learn best with a hands-on, integrated-curricular approach. At home and at her remote cabin, bears are some of her closest neighbors, and she has the opportunity to observe bears each summer when sailing in Southeast Alaska.



Part 1: Background Information

1. Develop an **appreciation** for wild bears (verses 1, 10-13)

Three species of bear live in North America. Since our story is about grizzly bears, they will be the focus of this guide. However, much of the information about bear safety applies to all bear species.

Grizzly/brown bears (*Ursus arctos*) live in Alaska, Canada and in limited numbers in a few western states. They grow to seven to nine feet in length, can weigh 250-600 pounds (female) or 500-1100 pounds (male) and may vary in color from light blonde to dark brown. A prominent shoulder hump and long, slightly curved claws are characteristic of grizzly bears; they are larger and have less prominent ears than black bears. "Brown" bear is used to refer to all members of this species, though bears like those in our story that are found inland and in northern habitats are often called "grizzly" bears.



Grizzly Bear

Sows (females) are usually at least six years old before having their first cubs. Mating occurs May through June. Litter size varies from one to four, but most often two cubs weighing less than one pound are born in the winter den in January or February. When they leave the den that spring, cubs weigh about 15 pounds. Young bears remain with their mothers for two-and-a-half years, separating in May or June. When food is scarce, cubs may remain with their mothers for three to five years. Sows keep cubs away from boars (males) as they might attack the cubs.

The first year on their own often finds young bears exploring new territory and looking for food. Grizzly bears are omnivores and consume a wide variety of foods. In many areas, salmon are a crucial food source. As in our story, the high caloric intake of sugar-filled berries in the fall can add significantly to a grizzly bear's weight as it prepares for hibernation. Den sites, especially for sows and cubs, are often high on mountain slopes but may be located beneath tree roots or any suitable place that will remain dry throughout the winter. Grizzly bears typically live to be 22 to 26 years old.



B.

Become **aware** of how humans might negatively impact bears (verses 1-4, 13)

With few exceptions, negative human-bear interactions involve food. Problems occur when bears find food in potentially hazardous situations. It is up to us to be aware of how we might create these hazards and to avoid doing so.

Like the brother bear in our story, a young male bear is especially apt to travel long distances from where he was reared. Careless or ignorant people might inadvertently train bears to seek food in dumpsters, remote cabins, pet food bins, animal pens, garbage cans, compost bins, campsites, and other inappropriate places that can create a "problem" bear (actually the result of "problem" people). All bears show excellent ability to remember where food has been found and will return to the same location year after year.

There are few options for dealing with a "problem" bear. Moving them to a new location is seldom successful as bears will travel over 100 miles to return to their home range. Relocated bears are at risk from older, larger bears into whose space they have been introduced. Few zoos are able to provide suitable new homes for adult animals. Attempts to retrain bears that are conditioned to seek food from human sources by such methods as shooting them with rubber bullets are seldom successful. Often, the only option for dealing with these bears is to destroy them—either by lethal injection or by shooting them. Conflicts with humans are a primary source of mortality for bears. Loss of habitat, new roads in wilderness areas, increased hunting pressure, collisions with vehicles, and dependency on food, garbage and domestic animals are the most common threats to bear survival.










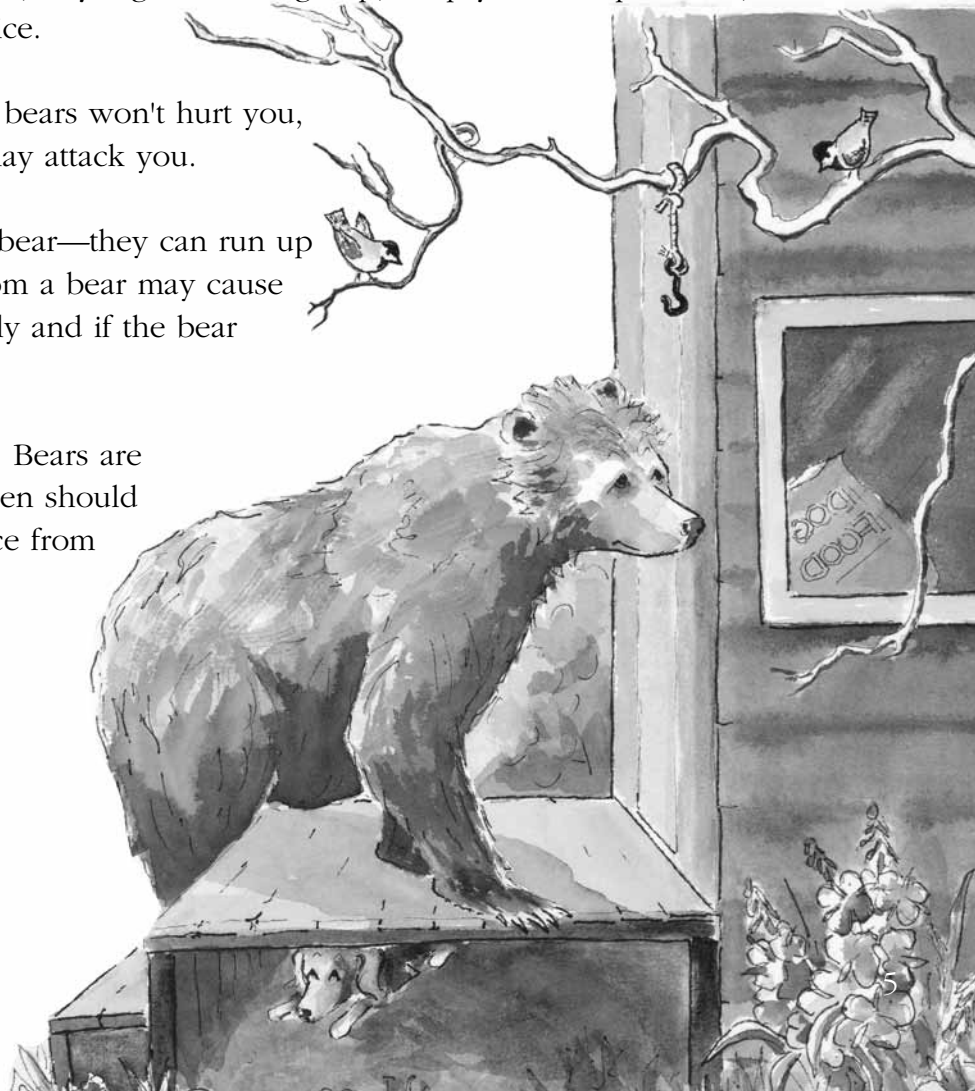
Identify **actions** people can take to ensure bears remain wild (verses 4-9, 13)

Around Home. Verse 5: Use electric fences to protect domestic animals, the mild shock is not harmful but provides a strong deterrent. Verse 6: Bear-proof garbage cans and dumpsters secure contents from bears. Verse 7: Bird feeders should be used only during winter; store dog food and other animal feeds in bear-proof containers.

In the Backcountry. Verse 8: Choose a campsite with good visibility, not an animal trail. Cook at least 100 yards downwind from tent sites and store all food away from campsites. Verse 9: Stay alert and be willing to give up a berry patch or a trail in order to avoid a bear-human conflict. Verse 13: Travel in groups and sing or talk to alert bears and other wildlife.

Bear Encounters. Encountering bears in the wild can be a positive experience. Here is the current advice for how to react if you do see a bear.

-  **Avoid contact:** Travel in groups and make noise. If you see a bear, stay calm, avoid it if you can and give it every chance to avoid you.
-  **Identify yourself:** If the bear sees you, stay together as a group, keep your backpacks on, wave your arms and talk to it in a normal voice.
-  **Don't threaten or throw things:** Most bears won't hurt you, but if you threaten or hurt them they may attack you.
-  **Don't run:** Never, ever run from a bear—they can run up to thirty-five miles an hour. Running from a bear may cause the bear to chase you. Back away slowly and if the bear follows you, stop and stand calmly.
-  **Stay with your parents or other adults:** Bears are more respectful of larger people. Children should stay with their group and seek assistance from the nearest adult.





Part II: Student Activities

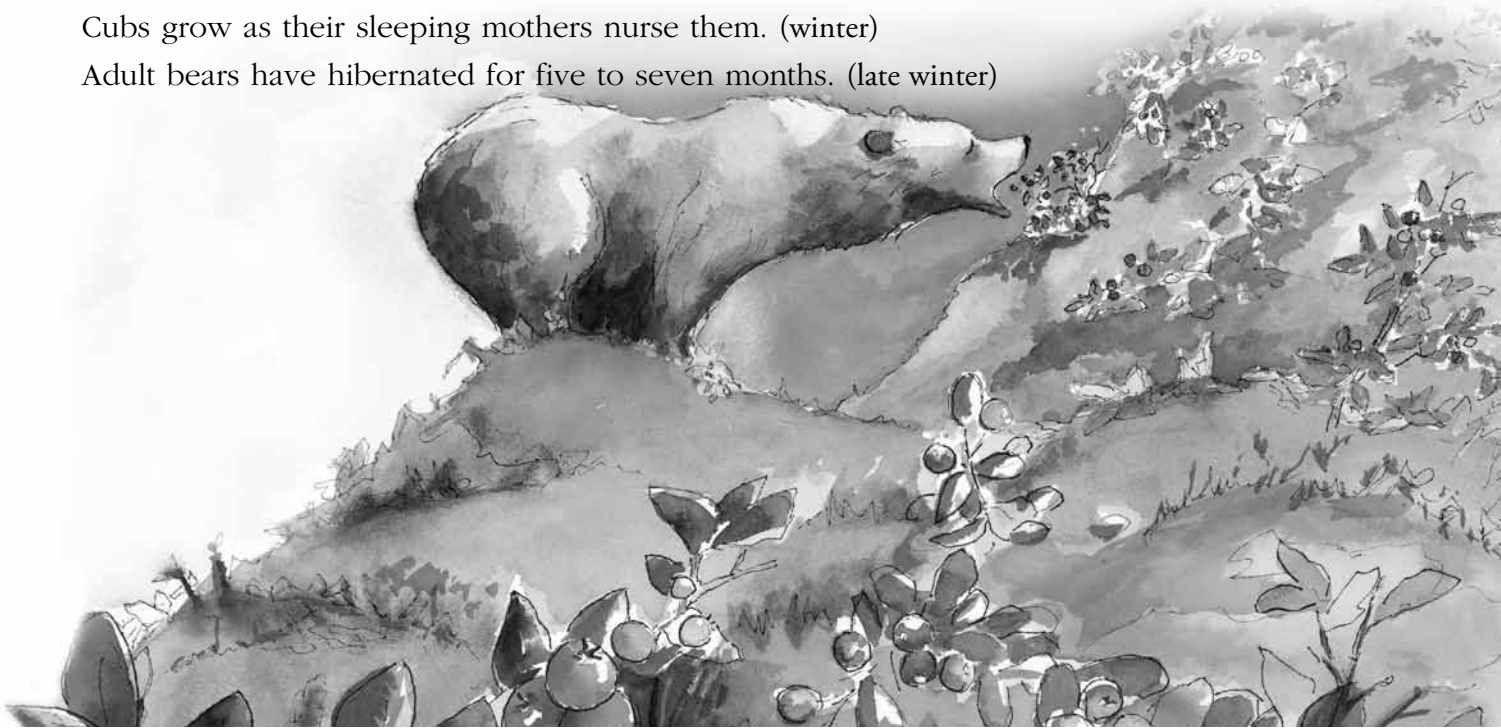
A. Appreciating wild bears

1. What do grizzly bears DO all year?

Objective: Students will be able to identify what a grizzly bear might do during each season of the year.

Materials: A four-season timeline, labels for each of the following bear behaviors written on a cutout of a bear (see page 15 for bear outline to enlarge and copy).

- Bears come out of their dens and they are hungry. (late winter/early spring)
- When they leave the den, this year's cubs weigh about 15 pounds. (early spring)
- Bears search for food as the snow melts. (spring)
- Food is scarce so bears may prey on moose or caribou calves or carcasses. (spring)
- Mothers chase away two-year-old cubs. (late spring)
- Females are ready to mate. (late spring/early summer)
- Bears feed on plants and small or weak animals. (summer)
- Bears eat for hours, take a nap, then eat some more. (summer)
- Bears feed on ripening berries and returning salmon. (late summer/early fall)
- Bears are fattened up after eating for many months. (fall)
- The first snows come and bears have trouble finding food. (fall)
- Bears dig dens and crawl in to hibernate. (late fall/early winter)
- Bears go to sleep and live off stored fat without eating or drinking. (early winter)
- Cubs are born in the dens. (winter)
- Cubs grow as their sleeping mothers nurse them. (winter)
- Adult bears have hibernated for five to seven months. (late winter)





Procedure:

1. Before class, make 16 copies of the bear and cut them out. Write one of the behaviors on each bear. Make a four-season timeline to display on the board.
2. Begin by giving students the opportunity to tell about their own experiences with and observations about bears. For example, someone might have viewed bears in Denali, seen a bear when fishing, or found bear scat out hiking. A student may even want to hunt and kill a bear "like my uncle did."
3. Pass out bears with behaviors labeled to students at random (one per student or per student pair, depending on class size). Have students read their behaviors; for younger students have them hold up their bear and you read the behavior.
4. Discuss what time of year students think each behavior would take place. Have them stand in front of the timeline at the appropriate time of year.
5. As new behaviors are read, adjust where students are along the timeline.
6. Once all students are in place, have them attach their bear behavior on the timeline for a permanent display.

Extension: Have students draw illustrations (or cut out magazine pictures) of each bear behavior to display on the timeline next to each label.



2. How BIG is a grizzly bear?

Objective: Students will compare the weight of an average primary-grade student with that of an average male grizzly bear.

Materials: A large number of the same kind of objects such as pennies, marbles, dried beans, or cubes. Two jars of equal size, large enough to hold 80 of these objects. Label one "second grader" and the other "adult male grizzly bear."

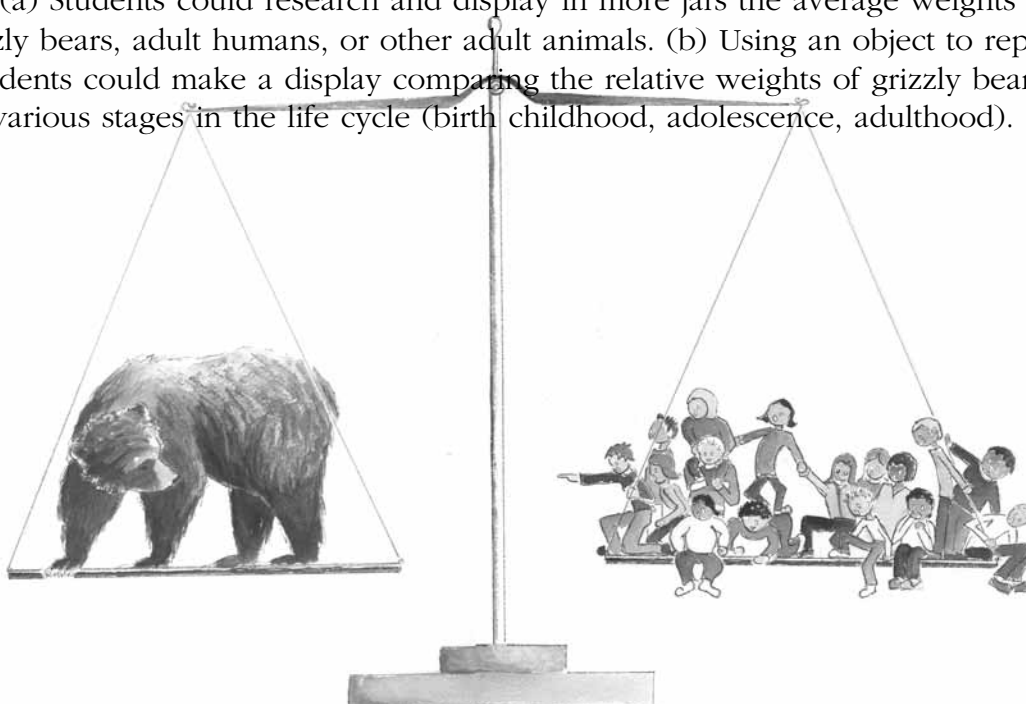
Procedure:

1. Discuss the concept of weight with the class. They might want to tell how much they weigh. Discuss the idea of average weight then ask them to guess how much an average second grader weighs. Then write the average weight of a second grader on the board (about 50 pounds). Ask them to guess how much an average male adult grizzly bear weighs. Don't tell them the answer yet.

2. Bring out the objects and the two jars. Tell them that each of the objects is going to represent ten pounds. Ask them how many of the objects would be needed to represent the weight of a second grader. Have students come up and put five objects in the jar marked "second grader."

3. Pass out five of the objects to each student so that each one has the equivalent of one second grader's weight. Have them come up one at a time and drop their five objects into the jar marked "adult male grizzly bear." As they drop their objects in, you keep a running tally of how many second graders' worth of objects have gone into the jar. When everyone has taken a turn, count by tens as you point to each tally mark to determine how many pounds are represented in the jar so far. Repeat this process until 800 pounds (or 80 objects) are in the jar. Then write the average bear's weight on the board next to that of the second grader. Have them compare the two jars and be amazed!

Extension: (a) Students could research and display in more jars the average weights of adult female grizzly bears, adult humans, or other adult animals. (b) Using an object to represent .5 pounds, students could make a display comparing the relative weights of grizzly bears and humans at various stages in the life cycle (birth childhood, adolescence, adulthood).





3. What is a grizzly bear's HABITAT like?

Objective: Students will identify the elements of a grizzly bear's natural habitat and compare it to their own habitat.

Materials: *Ballad of the Wild Bear* and other picture books that show grizzlies in their natural habitat, large (12" x 18") pieces of drawing paper either creased down the middle or with a line drawn down the middle, drawing and coloring utensils.

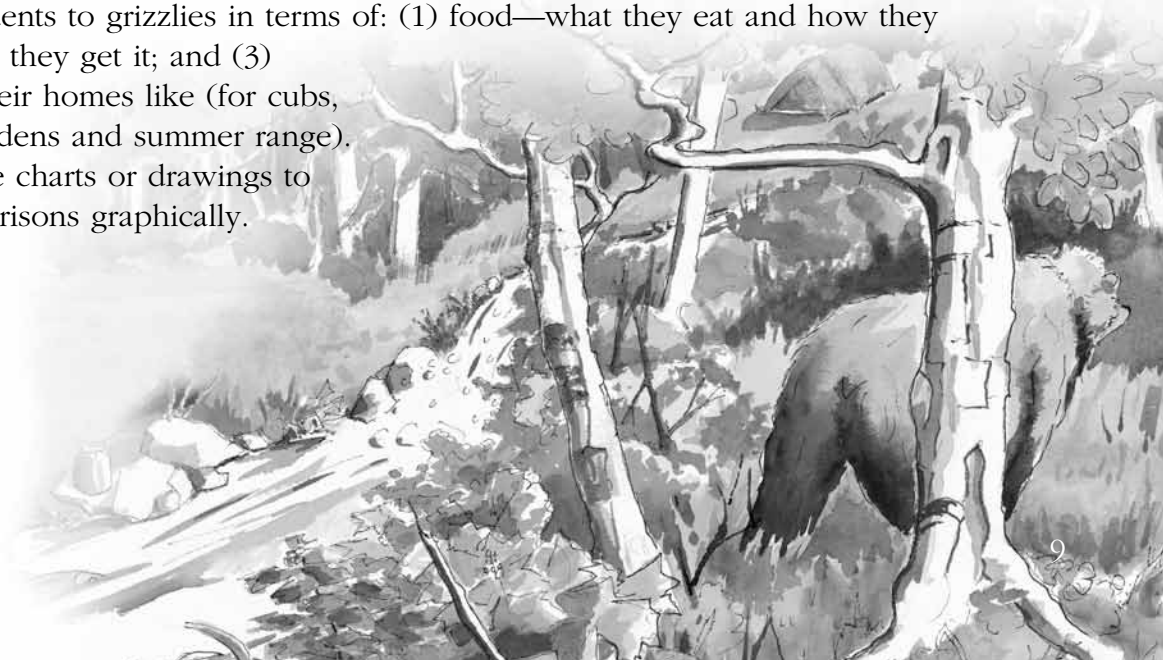
Procedure:

1. Say or write this definition of habitat on the board: "The area where animals normally live and can find all the things they need to survive including food, water and shelter."
2. Look through picture books showing where grizzly bears live to identify and make a list of what makes up a grizzly bear's habitat. For younger students, the teacher can show the whole class one book at a time and make a list together. Older students can work individually or in small groups making their own lists, then the whole class can gather and compile one master list. The list would include: tundra, forests, hillsides, meadows, valleys, rivers, streams, lakes, ponds, plants, berries, grasses, trees, bushes, other animals, etc.
3. Talk about where the children themselves live and make a list of what makes up their habitat. The list might include: houses, people, cars, roads, stores, signs, buildings, telephone poles, etc. and, depending where you live, elements of the natural environment.
4. Pass out drawing paper and have students label one half "Grizzly Habitat" and the other half "My Habitat" and ask them to draw/color illustrations for both based on the discussion and the lists you made.
5. Conclude the activity by having the class discuss how, when, where and why grizzly and human habitats might overlap. This discussion can set the stage for the next activities which relate to human-bear interactions.

Extension: Focusing on the second part of the definition of habitat, discuss the three elements mentioned, comparing students to grizzlies in terms of: (1) food—what they eat and how they get food; (2) water—where they get it; and (3)

shelter—what are their homes like (for cubs, discuss both winter dens and summer range).

Students could make charts or drawings to display these comparisons graphically.





Becoming aware of how humans can negatively impact bears.

1. How careless people cause problems for bears in the WILDERNESS.

Objective: Students will demonstrate an understanding that in their natural habitat grizzly bears have many food sources, but they will learn to seek human sources of food if people are careless when they visit the wilderness.

Materials: Index cards with the name (and a picture if possible) of things grizzlies eat in the wild: roots, grasses, raspberries, blueberries, crowberries, ground squirrels, mountain goats, moose calves, weak adult moose, caribou calves, weak adult caribou, trout, salmon. A picnic basket or cooler with some people food in it (see list below for ideas).

Procedure:

1. Re-read verse one of *Ballad of the Wild Bear* aloud; ask students to name some things Grizzly might eat as she prowls in the wilderness on a chilly night.
2. Name potential sources of food and have students identify which are or are not food sources Grizzly would find in her natural habitat. Use the above list of things grizzlies eat in the wild and this list of picnic things that are not part of a wild grizzly's diet: bacon, dog food, oranges, fried chicken, candy, watermelon, toothpaste, brownies, oatmeal, baked beans, tuna fish sandwich, garbage, hot dogs, water bottles. Mix the lists up when naming them.
3. Reinforce what a grizzly's natural diet is by reading the index cards aloud to students (if they have pictures, show them).
4. Tell the students to pretend that the classroom is Grizzly's natural habitat. Pass out the index cards of foods to individual students and ask them to spread out around the room. Choose a student to role play Grizzly and instruct her to roam around the room collecting food (cards).
5. Gather students together and read verse two of *Ballad of the Wild Bear* aloud. Discuss what happened when Brother Bear found picnic food left out by careless people.
6. Choose two students to pretend to picnic in the wilderness. Use a table or student desks to represent a picnic table. Ask them to set out their picnic and pretend to eat, then lie down for a nap nearby leaving a mess of the picnic.
7. Pass out some or all of the index cards and have students spread out around the room again. Choose a student to role play Brother Bear and instruct him to roam around collecting food AND to show what would happen when he comes upon the careless people's picnic.
8. Discuss what happened and how the people's careless behavior caused a problem for Brother Bear. Brainstorm ideas of how people could change their behavior.



2. How careless people cause problems for bears AROUND TOWN.

Objective: (1) Students will identify some careless things people do that cause bears to seek food around homes, neighborhoods and towns. (2) Students will demonstrate an understanding of what happens to a bear that becomes conditioned to human food.

Materials: A grizzly bear mask (copy the illustration of a grizzly's head on page 15).

Procedure: (Note: Because this activity will include a discussion of bears being shot and killed, it may be uncomfortable for young students. Having the teacher role play the part of Grizzly in a relaxed, make-believe fashion might make students feel more comfortable.)

1. Before beginning this activity, review the "Background Information" on page 3. It will be important to be well-versed about the topic of dealing with a bear that becomes conditioned to finding human food so you can help students understand that killing the bear is often the sad outcome—but one that might be avoided if people change their behavior.
2. Wear the bear mask and play the part of Grizzly. Review what they learned in the book and during previous activities: what grizzlies do, how big, natural habitat and wild foods. Discuss with students what happened to Brother Bear in the last activity. Encourage them to tell about how the people caused a problem for Brother Bear by being careless with their picnic. Talk about things people could have done to avoid the problem.
3. Ask students to brainstorm some things thoughtless people might do that would cause a problem for Brother Bear. Help them come up with ideas such as: leave garbage in open cans or in the back of a truck; leave pet food or animal feed outside in containers bears can get into; leave smelly foods in open compost piles; fill bird feeders when bears are active.
4. Re-read verse three of *Ballad of the Wild Bear* aloud and show students the picture from verse four. Talk about what happened to Brother Bear in these verses. Discuss why he was shot, emphasizing that it was things people did that made the bear get in trouble. Discuss the two possibilities that "shooting" Brother Bear might mean. (1) The bear was shot with a tranquilizing medication that put him to sleep, then he was relocated away from the town and people. Discuss the lack of success with this solution. (2) The bear was shot with a bullet or lethal injection. This is the more likely outcome for Brother Bear.
5. To end on a positive note, Grizzly should reassure students that there are plenty of things people can do to avoid causing problems for bears around their homes, neighborhoods and towns. Tell them they will learn about some of those things in the next lesson.





Identifying actions

1. People CAN learn!

Objective: Students will demonstrate an understanding that people can learn to change their behavior so bears don't learn to seek human foods.

Materials: Two charts labeled "Brother Bear and Careless People" and "Grizzly and Careful People." This list of bear and people behaviors written on individual papers that can be attached to the chart, using two colors of papers: one for bear and one for people behaviors. Cutouts of a human outline and a grizzly outline (see pages 14-15) to put next to each behavior (nine of each). (Or simply write "Bear" or "People" on nine papers to put next to behaviors.)

Left food on the picnic table and went in their tent. (P)
Found fried chicken, fruit and other foods to eat. (B)
Left full garbage cans and pet food on their porches. (P)
Wandered into town and got into garbage and pet food. (B)
Learned to look for food around careless people. (B)
Decided they had to shoot the bear. (P)
Put electric fences around the chicken coop. (P)
Tried to get some chickens but got an electric shock instead. (B)
Put garbage in sturdy, bear-proof garbage cans and dumpsters. (P)
Tried to get garbage out of the dumpster but couldn't. (B)
Put dog and bird feed inside once spring arrived. (P)
Tried to find animal food on the porch, but didn't find a thing. (B)
Kept their camp clean and cooked downwind from camp. (P)
Wandered on past the camp without smelling any food. (B)
Made noise and stayed alert when picking berries or hiking. (P)
Wasn't surprised by people who visited their wilderness habitat. (B)
Stayed alive and wild and able to coexist with people. (B)
Stayed alive and safe and able to coexist with bears. (P)

Procedure:

1. To go over how people caused problems for Brother Bear, review verses two and three and show the pictures. This time, emphasize that both pictures show people watching Brother Bear find and get into human sources of food. Show the picture for verse four; lead students to talk about how seeing Brother Bear get shot would really make people want to change their behavior.

2. Read verse four aloud; ask students if they think wild bears and people can coexist

(discuss meaning of the word). Read the rest of the story aloud to the end.

3. Pass out the six papers with bear and people behaviors for the Brother Bear chart. Explain the two colors. Ask a student with a people behavior to read it aloud (or read it for younger students). Ask students with bear behaviors to read them aloud and have the class decide which bear behavior would follow (match) that people behavior. Have these students stand next to each other. Repeat for all remaining behaviors. Next, have the class help these students line up in the order that the events occurred in the story. Finally, have them put the behaviors on the chart labeled "Brother Bear and Careless People" in this correct order.

4. Pass out the papers with bear and people behaviors for the Grizzly chart. Repeat the above process until that chart is completed, too.

5. Compare the charts, discussing how after seeing Brother Bear shot, people learned to modify their behaviors so Grizzly could live and remain wild.

Extensions: (a) Older students could copy the charts so they have one of their own to take home. (b) Students could role play these pairs of behaviors.



2. Let's keep bears wild and people safe

Objective: Students will illustrate at least one action people can take to help keep bears wild and people safe.

Materials: Poster paper and drawing and coloring utensils.

Procedure:

1. Have students choose one thing people can do to keep bears from being conditioned to human food sources. Use ideas from the *Ballad of the Wild Bear*, other books, the Grizzly chart (previous activity) or from discussion.

2. Ask students to design and create posters—with labels—to illustrate these actions in poster form. Display the posters in the classroom, school or other public building.

Extensions: (a) Students could design and create bumper stickers instead of or in addition to posters. (b) If there is a local radio station, have students write and record a short public service announcement encouraging people to behave in a bear-aware manner. (c) Invite a biologist or ranger to visit the classroom and speak to students about being safe around bears.



A.



Part III: Additional Resources

Books for Children

- Cooper, Jason. *Alaska Brown Bear: Giants Among Us*. Rourke Book Co., Inc., 1997.
- Hodge, Deborah. *Bears: Polar Bears, Black Bears and Grizzly Bears*. Kids Can Press, 1997.
- Hoshino, Michio. *The Grizzly Bear Family Book*. North-South Books, 1992.
- Robinson, Claire. *In the Wild: Bears*. Heinemann Library, 1997.
- Stone, Lynn M. *Brown Bears*. Lerner Publications Company, 1998.
- Swanson, Diane. *Welcome to the World of Bears*. Whitecap Books, 1997.
- Wexo, John Bonnett. *Zoobooks: Bears*. Wildlife Education, Ltd., 2000.

B.

Publications

- Alaska Geographic, *Alaska's Bears*. Alaska Geographic, 1993.
- Lynch, Wayne. *Bears: Monarchs of the Northern Wilderness*. Mountaineers, 1993.
- Murie, Adolph. *The Grizzlies of Mount McKinley*. University of Washington Press, 1981.
- Smith, Dave. *Backcountry Basics: A Definitive Guide to Avoiding Unpleasant Encounters*. Mountaineers, 1997.
- Smith, Karlene Ray and Ann Hudson Bush. *Investigating Science through Bears*. Teacher Ideas Press, 1994.

C.

Videos

- A Gathering of Bears*. Alaska Department of Fish and Game and British Broadcasting Company, 1993. (Distributed by Alaska Video Postcards. Anchorage, AK.)
- Showdown at Grizzly River*. Doug Bertran Productions and WNET/Thirteen New York, 2000. (Nature Video Library, from the PBS television series "Nature.")
- Staying Safe in Bear Country*. In cooperation with the International Association for Bear Research and Management, 2001. (Distributed by Magic Lantern Communications Ltd., Toronto, Ontario; also available at ARLIS Library, Anchorage, AK.)
- Way of the Bear in Alaska*. Stonorov, Derek and Daniel Zatz, 1997. (Distributed by Bullfrog Films, Oley, PA.)

D.

Curriculum Resources

Alaska Department of Fish and Game
Wildlife Education
333 Raspberry Road
Anchorage, AK 99518
907-267-2168 or www.state.ak.us/adfg

Audubon Alaska
715 L Street, Suite 200
Anchorage, AK 99501
907-276-7034 or www.audubon.org/chapter/ak/ak/

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