



Bear Smart Audit

LESSON

GRADE LEVEL 5–7

CATEGORY Plants, Animals
& Habitats

TOPIC Bears

LENGTH

Varies with size of site

MATERIALS

- Bear Smart Audit worksheet
- Pens or pencils
- Class set of clip boards

SETTING

Outdoors in schoolyard or
community area

GROUP SIZE

Any size

SUBJECT AREAS

Math, Personal Planning,
Science, Social Studies

Overview

Students complete a bear smart audit of an area in their community such as the schoolyard or their home to find out which bear attractants are present and how they might remove the attractants.

Objectives

Students will:

- Analyze how both bears and humans can adapt to their environment
- Analyze the role of human beings as part of interconnected ecosystems
- Evaluate human impacts on local ecosystems
- Collect and analyze data regarding hazards for bears

Making Connections

As students learn how bears adapt to their environment in order to survive, they will be able to make connections to how human communities and human actions impact the lives of bears.

Background

Bears may pass through human communities for many reasons, but when they stay around and get into trouble, it is almost always because they are finding some kind of food source made available by people. These food sources are very attractive to bears because humans have to expend much energy to get them.

Unfortunately, feeding on non-natural food sources often leads to the death of a bear. As a bear gets food rewards, it becomes increasingly bold in its approach. At first, a bear may only come to the edge of a yard but eventually, as it gets used to being around humans, a bear becomes willing to move closer and closer to houses or people in order to get food. Some bears have even broken into homes or other buildings in order to obtain food. A bear that has lost its fear of humans is known as a habituated bear. A bear that associated food with humans is called a food-conditioned bear. Usually bears that are habituated or food conditioned are relocated or destroyed due to concerns that they pose a threat to humans.

By leaving food, garbage and other attractants around, people play a large role in instigating human-bear conflicts. Removing bear attractants from our communities makes them safer for humans as bears are less likely to be drawn to

them. It also makes life safer for the bears as they are less likely to engage in problem behaviour and end up being moved or destroyed.

Carrying out the Bear Smart Audit will help make your school, home and community “Bear Smart” by identifying possible bear attractants and suggesting alternatives that will decrease the chances of bear/human conflicts.

Procedure

Warm Up

1. Start this lesson by brainstorming what might attract a bear to an area used by humans. Record all suggestions in the form of a web.
2. Discuss why it is a problem for a bear to enter a human community; what sorts of problems might it face; and what sort of problems might it cause for humans.
3. Explain to the students that they will be using a “Bear Smart Audit” to analyze their school/home/neighbourhood and identify any features that might attract a bear to an area and provide it with a food source. The goal of the audit is to find and eliminate possible bear attractants.
4. Identify the area that students will be working in while carrying out the audit. It may be necessary to divide the area in to sections and to assign a team of students to each section. If the audit is being carried out beyond the school grounds it is important that each team have an adult helper accompanying them.
5. Hand out the Bear Smart Audit and read it with the students. There may be some concepts of vocabulary that will require explanation.

The Activity

1. Students complete the audit, listing all the possible bear attractants that were identified.
2. Using the audit determine possible solutions to the problems found. Analyze the data and look for patterns (such as consistently identified problems with outdoor garbage cans), areas of greatest concern and areas in which people are already acting in a bear smart manner. Collate the data collected and represent it in any of a variety of ways such as graphs, pictographs, bar graphs, and rank ordering.
3. When the data has been displayed, discuss the results paying particular attention to how human structures and behaviours effect the surrounding ecosystem.

Note: Where the activity goes from here will depend upon what was found, the ease with which the problems identified can be corrected, and the budget available for possible necessities such as replacing garbage cans. This is an excellent activity to extend into a school or community project

4. In small groups have students determine how aspects of a bears survival needs might adapt to using the human built structures for foraging, resting or traveling.

Wrap Up

As a class review the key findings of the audit and class discussions. How do humans impact local ecosystems? What effect do human communities have on bears and their habitats? What can humans do to limit our impact?

Assessment

Assess for completion of “Bear Audit”. Observe student participation in group discussions. Have each student complete a “Ticket Out the Door”(ex: on a slip of paper write two things learned and one question).

Extensions

Spend an afternoon cleaning up litter in the schoolyard or park. Create a pamphlet that identifies the most common bear attractants and how to correct them. Make copies of the pamphlet and deliver them through the neighbourhood.

Write a report on the “Bear Smart” status of the school or neighborhood. What is being done right? Which areas need improvement? Share this report with the school district, neighborhood or conservation officer.

Display the data collected in the hallway or present it at a school assembly.

Write an article for the school newsletter or local paper discussing the problems associated with food conditioned bears and how those problems can be solved.

Contact a local conservation officer or conservation organization and arrange for a guest speaker to visit the classroom.



The Bear Smart Audit

Attractant	Audit Questions	✓	✗
Garbage Background: Garbage that contains food is one of the main attractants for bears. Some surprising items such as disposable baby diapers and petroleum products also attract bears. Bears can easily tip garbage cans and even lift lids to get at garbage. If a bear has already visited the area, it may have dragged food or garbage into the vegetation (the trees, bushes, tall plants) in order to feel safe while it was eating. Have an adult check the vegetation for garbage.	Could a bear get into the garbage?		
	Do the garbage cans have a smell that might attract a bear?		
	Are people putting out their garbage cans before 6am on the day of pick-up?		
	Is there litter lying around?		
	Has any garbage been dragged into the forest or behind bushes? For safety, have an adult check this.		

Solutions:

- Garbage should be stored inside a garage or in a bear proof container (see bearsmart.com to find dealers). Remember that bears are excellent climbers and easily able to get at garbage stored on a balcony.
- Empty garbage cans can be an attractant if they are smelly. Use ammonia to clean them as it will remove the smell and is distasteful to bears.
- Around urban areas, bears tend to be most active at night. Therefore garbage should be put out on the curb in the morning before pick-up and not the night before.

Comment and Solutions:

Attractant	Audit Questions	✓	✗
Bird Feeders Background: Bears are fond of birdseed, especially items like sunflower seeds, because they tend to be high in calories.	Are there birdfeeders around (including hummingbird feeders)?		
	Could a bear reach the birdfeeder?		
	Is the birdseed stored outside or in an outside shed that might be accessible to a bear?		
	Is there any birdseed on the ground under the feeder?		

Solutions:

- Remove birdfeeders during bear season (approximately April to December). There are plenty of natural foods for birds at this time.
- If people feel they have to feed birds, then the feeder should be hung well out of the reach of a bear. Since bears can stand on their back legs, the feeder should be at least 2 metres or more above the ground. It is also essential that the area beneath the feeder is kept clean. Avoid using birdseed with millet as it tends to get scattered on the ground.

Comment and Solutions:

Attractant	Audit Questions	✓	✗
Fruit Trees/Gardens/Lawns Background: There are many plants that can be bear attractants.	Are there any fruit trees or berry bushes on the property?		
	Is there ripe fruit on the tree?		
	Is there ripe fruit lying on the ground?		
	Is there a vegetable garden?		
	Are products such as bone meal, fish fertilizer or deer repellent being used on the property?		
	Is the grass long and un-mowed?		
	Are there dandelions and clover growing?		

Solutions:

- Fruit should be picked as soon as it is ripe and any fruit that falls on the ground should be removed or fruit trees and berry bushes can be removed completely.
- Bears may be attracted to tomatoes, squashes, melons, early vegetables, corn, root vegetables and any herbs with a strong smell.
- Harvest vegetables as soon as they ripen. Locate the garden away from the house. If the garden seems to be attracting bears, consider an electric fence.
- Do not use items such as bone meal, fish fertilizer or deer repellent. Keep lawns mowed because grasses, dandelions and clover are all natural bear foods.

Comment and Solutions:

Attractant	Audit Questions	✓	✗
Pets and Pet Food Background: Pet food can be an attractant if pets are fed outside or the food is stored outside. A well-trained dog can keep a bear out of a yard or warn people that there is a bear nearby by barking. However, an untrained dog can upset a bear and create a bad situation. If you are not sure how a dog is with bears, bring it inside when a bear is around. Do not worry about a cat; it will hide if it is concerned about the bear.	Are pets fed outside?		
	Are pet food bowls left outside?		
	Is stored pet food accessible to a bear?		

Solutions:

- Pets should be fed in the house. If that is not possible, no pet food should be left in the bowl after a feeding and pet dishes should be put away between feedings.
- Store the pet food in a place that is secure from bears.

Comment and Solutions:

Attractant	Audit Questions	✓	✗
<p>Freezers, Vehicles and Homes</p> <p>Background: Bears are strong and it is easy and natural for them to flip a freezer or bend open a car door to get at food. Bears have even been known to walk into a home through an open door or window or break into a home following food smells. However, bears entering cars and homes usually only happens in communities where there are a lot of human-bear conflicts and bears have learned that people are a source of food. Find out if this has happened in your community.</p>	<p>Are there any refrigerators or freezers stored outside?</p>		
	<p>Is there any food in the parked cars?</p>		

Solutions:

- Store fridges and freezers inside.
- Do not store garbage, groceries, food for animals or coolers in a car.
- Keep doors closed during when bears are active.

Comment and Solutions:

Attractant	Audit Questions	✓	✗
<p>Barbeques</p> <p>Background: The smell of food cooking on a barbecue can attract bears from a long distance. Bears may try to get food that is left unattended cooking on a barbecue, be attracted to the grease can or a grill that is left dirty.</p>	Is the grill clean?		
	Has the grease can been left outside?		

Solutions:

- Clean the barbecue immediately after using it. Remove the grease can and store it indoors.
- Remind people to be careful when they are barbecuing and to make sure they keep a watch on the food.

Comment and Solutions:

Attractant	Audit Questions	✓	✗
Compost Background: Compost bins have food scraps in them and so can be an attractant to bears	Is there a compost on the property?		
	Can you smell the compost?		

Solutions:

- Compost only vegetable waste. Meat, fish or dairy should not be composted. If there are problems with bears in the area, do not compost fruit or eggshells.
- Lime can be added and the compost aerated often to reduce its odour.
- Bears use cover to hide in when approaching unfamiliar situations. Therefore, compost bins should not be located near cover such as the edge of a forest, or trees or bushes.
- An electric fence can be used to keep bears out.
- An indoor worm composter is a good alternative.

Comment and Solutions:

Bear Smart Audit

Activity 11 Worksheet

Name: _____ Date: _____ Location: _____



What is wrong with this picture?

1. Can you find at least seven things that are attracting bears to this yard? (List on back of this sheet).
2. What could the owners of this home do to stop attracting bears to their yard? (List on back of this sheet).