

CHAPTER 12

Caring for Canada

Think of a natural area that is special to you. What if there was a threat to your special place? What could you do? You might take positive steps as David Grassby did recently.

David Grassby was 12 years old when he read an article about environmental threats to Oakbank Pond near his home in Thornhill, Ontario. David decided to help protect the pond and its wildlife.

David talked to classmates and community members. He discovered that writing letters and informing the media are powerful tools to get action. He wrote many letters to the Town Council, the CBC, and newspapers. He appeared on several TV shows, including *The Nature of Things* hosted by David Suzuki.

In each of his letters and interviews, David explained the problems facing the pond and suggested some solutions. For example, people were feeding the ducks. This attracted too many ducks for the pond to support. David recommended that the town install signs asking people not to feed the ducks.

The media were able to convince people to make changes. David Grassby learned that it is important to be patient and to keep trying. He learned that one person can make a difference.

Today, Oakbank Pond is a nature preserve, home to many birds such as ducks, Canada geese, blackbirds, and herons. It is a peaceful place that the community enjoys.



Canada: Our Stories Continue



What David Grassby did is an example of active citizenship. He noticed a problem in his community and took action to solve it. He did so because he felt responsible for making sure his environment remained healthy. Across Canada, individual citizens, companies, schools, and organizations are choosing to help protect the natural resources of our country.

words matter!

To **preserve** means to keep in good condition or protect.



Inquiring Minds

Here are some questions to guide your inquiry for this chapter:

- What would happen if some of Canada's resources ran out?
- How do parks and protected areas help **preserve** our natural environment?



Our natural resources combine to give Canada a special landscape. The beauty of this landscape inspired Emily Carr. Why do artists paint pictures of the environment they see around them? This painting is titled *Skidegate, Graham Island, British Columbia*.



Katie's Inquiry



Canada's World Heritage Sites include national and provincial parks and historic sites. These are chosen by the United Nations because they are important to everyone. The Historic District of Québec (above) and S'Gang Gwaii, an island in British Columbia, are two of thirteen sites in our country. There are five World Heritage Sites in Alberta—what are they?



My dad works for Parks Canada. This summer, I am going with him when he visits different protected areas in Canada. I looked on the Parks Canada Web site, and there are so many places we could visit—not just parks, but World Heritage Sites and even World Biosphere Reserves. I wonder:

- Why do so many places in Canada need protection?
- How does Parks Canada help to do this?
- Is Parks Canada the only group that is helping our environment?

I am going to take a lot of photos on my trip. I am also going to interview some people. I know my dad cares about the environment, and I wonder if people across Canada have the same feelings.

World Biosphere Reserves are areas chosen by the UN because they are special. Their natural resources are conserved or used in a careful way. People usually live in these areas, too. Clayoquot Sound in British Columbia is one of these reserves.

Skill Smart

- Research why we have national and provincial parks in Canada.

Planning an Interview

Interviews are one way we can learn from others. In an interview, one person asks questions and the other person answers them. The questions are usually planned ahead and focus on a specific topic. To plan an interview, follow these steps:

Step 1

Think of a topic about which you would like to learn more. Write a list of questions. Try to make your questions “open” instead of “closed.”

Step 2

Find a person who knows a lot about your topic and who would be willing to answer your questions. Arrange a time to interview the person. Be sure you have your list of questions ready.

Step 3

During the interview, listen to what the person has to say. Record the answers to your questions. You can do this by taking notes or by asking the person if you can record their voice.

Step 4

After the interview, think about what you learned. Are there questions you wish you had asked?

More About . . .

Closed and Open Questions

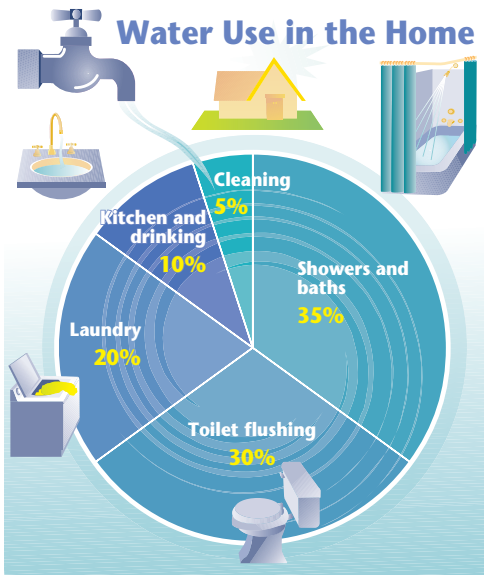
Closed questions are questions that can only be answered with *yes* or *no*. One example is “Did you help protect Oakbank Pond?”

Open questions give a person a chance to say more. They often begin with *how* or *why*. An example is “How did you help protect Oakbank Pond?”

Practise the Skill

On page 314, Katie mentions many ways of caring for Canada. Choose the one that interests you most. It could be Parks Canada, World Biosphere Reserves, World Heritage Sites, groups that help the environment, or another topic. Write ten “open” questions. Find an expert on your topic and ask the person if you can do an interview.

What If Some of Canada's Resources Ran Out?



Every day, we breathe the air. We use water to flush the toilet, drink, and wash. We eat foods from plants and animals. When we watch TV, play computer games, or turn on a light, we are using electricity. If you think about it, we could not survive without natural resources.

As we go through our daily lives, we often forget the impact we have on the natural resources that make up our environment. We forget that we leave an *environmental footprint*. This footprint is the effect we have on the environment when we use resources, create waste, and cause other changes.

According to this chart, what do Canadians use the most water for? How do you think using water in these ways affects our environment? How could you reduce the amount of water you use at home?

Dirty Footprints

Did you ever wonder where all of our garbage goes? Often it goes to a landfill like the one shown below. It might be hard to believe, but each Canadian throws out about one tonne of garbage each year!

What kind of environmental footprint do you think landfills create? How do they affect the land and animals? How do they affect our quality of life?



Caring About Canada

Since Canada is so huge, it is hard to imagine that any of our natural resources would ever run out. But remember what happened to the bison on the Prairies? They were overhunted and driven out of their habitat by settlers and the building of the railway. Today there are almost no bison left. Can you think of other examples of natural resources running out or being destroyed in an area? What effects would this have?



Cause	Effects
Clearing land for lumber and to build houses	<ul style="list-style-type: none"> → Fewer natural areas → Destroys animal habitats → More endangered species
Cars and factories create air pollution	<ul style="list-style-type: none"> → Polluted air/smog → Health problems for people and animals
Industries dump waste into waterways	<ul style="list-style-type: none"> → Polluted water that is not safe to drink → Animals that live in or use waterways die → Water is unsafe for swimming
Companies mine where animals live or migrate	<ul style="list-style-type: none"> → Animals cannot find food → Destroys animal habitats

What other causes and effects can you add to this chart?
Which of these causes has an effect on your quality of life?

Canadians are faced with a problem. Many of our activities have a negative impact on the environment, and therefore, on us. But we cannot stop building houses, driving, making products, logging, and mining. We depend on these activities for the way we live. They also provide millions of people with jobs. How can we live in our environment and protect it at the same time? Who do you think is responsible for preserving our resources?

How Do Parks and Protected Areas Help?



Parks Canada is part of the government. This map will give you an idea of how important they are to all areas of Canada!

Canada's National Parks, World Heritage Sites, and World Biosphere Reserves



This is Forillon National Park in Québec.



Fathom Five National Marine Park in Ontario helps to protect animals and plants of the Great Lakes. Its clear water and more than 20 shipwrecks attract divers.

Kejimikujik National Park is in Nova Scotia. It protects the endangered Blanding's turtle.

Thinking It Through

- Find the national park on the map that is closest to where you live. Why is it important to protect this area?
- How do you think national parks help Canadians appreciate their country?
- Why do you think there is at least one national park in every province and territory?



Kluane National Park covers an area of 22 013 square kilometres in the Yukon Territory. It was created to preserve Canada's highest mountains, longest glaciers, and spectacular wildlife.

Interview with Pauline Scott

(Communications Manager, National Parks in Nunavut)

How do parks help preserve natural resources?

Canada's national parks help to protect examples of every natural region found across the country. Within national parks, communities of plants and animals are protected. Life goes on naturally. Some species that are endangered get special protection. Parks can also act as nurseries for species that go missing in areas outside the parks.



Whose responsibility do you think it should be to preserve Canada's national parks

The Government of Canada thinks it should be a partnership between the people of Canada and the Parks Canada Agency. Aboriginal people help to co-manage some of our national parks. There is a responsibility for visitors to use these parks wisely and for all citizens to care about them.

What do visitors to the parks do that hurts the environment?

There are many fun and exciting activities to do in Canada's national parks. These activities can be done safely and without hurting the environment. It is important to know how to behave in a park. Remember to stay on the trails to avoid damaging fragile plants. Pack out what you pack in. Help keep animals wild by not approaching or feeding them. Keep streams and lakes clean by not polluting them with garbage or human waste.

What can citizens do to help preserve Canada's parks?

The best way is to learn about them and to enjoy them. In this way, we will all care more about our parks. We will want to make sure that we have them in the future for our children and grandchildren. We can also join organizations that support national parks, such as Friends of the Parks groups. We can let our government representatives know that national parks are important to us. Learn all you can and encourage your parents to vacation at national parks and national historic sites.

Provincial Parks

Provinces and territories set aside special areas, too. These areas allow people to enjoy the natural beauty of where they live, but also help to protect the animals and plants. Provincial parks and protected areas do not allow activities that will harm the natural environment. Only activities that leave a small environmental footprint are allowed.

Activities Allowed (but Limited) in Provincial Parks	Activities Not Allowed in Most Provincial Parks
Hiking	Logging
Camping	Mining
Cycling	Hunting
Boating	Trapping
Fishing	

Boating and fishing are allowed, but controlled, in provincial parks. Why do you think this is done?



Parc du Mont-Tremblant is a provincial park in the Laurentian Mountains of Québec. Wolves, bears, raccoons, otters, moose, bald eagles, wolverines, and beavers are just some of the animals protected by the park. What might threaten these animals?

Urban Parks

Imagine that there was no place in your community to play baseball or soccer, or to meet your friends. City governments often create urban parks. These are green spaces within a city where people can walk, cycle, picnic, and enjoy nature. Many of these parks also protect natural resources, such as trees, rivers, and animals.



How do urban parks, such as this one in downtown Calgary, improve the quality of life of people living in cities?



The Trail length in the Yukon will be 1600 km! It is a real wilderness experience. Here you are more likely to meet a dog team on the Trail than a skier. You can watch salmon and Arctic char in the clear water.

How Else Do Canadians Care for Their Environment?



In school we learn about reducing, reusing, and recycling as ways to care for our environment. As I talked with people on my trip, I learned that there are many other things Canadians are doing.

Making a Difference

The SEEDS Foundation

The SEEDS Foundation teaches students to conserve our land. This organization has several programs that encourage students to protect the environment. Students have found hundreds of ways to help conserve natural resources. They turn off lights, collect garbage, build composting sites, educate their parents on how to conserve at home, recycle paper, and several other projects.

The SEEDS Water Challenge encourages students to conserve water so that enough water is available for everyone. A national water challenge is due to come out. It was such a great idea that the government of Canada continues with a national water challenge to help preserve this important resource.



SEEDS stands for “**S**ociety for **E**nvironment and **E**nergy **D**evelopment **S**tudies.” The SEEDS Foundation is a Canadian organization based in Calgary.

The SEEDS Foundation encourages schools to become Green Schools by doing projects that enhance the environment. Imagine if every school in Canada became a Green School. What a difference that would make to our environment!

Skill Smart

- How “green” is your school? How could you encourage others to make it “greener”? Design a persuasive poster that shows different ways of caring for your school environment.

Environmental Groups

You have already learned that Canadians have very diverse backgrounds and experiences. They also have different interests and concerns, including concerns about the environment. Wherever you go in Canada, you will find organizations that are working toward protecting our environment in various ways. Here are just a few of the hundreds of organizations in Canada:

Green Kids

This group focuses on environmental education in elementary and middle schools. They use live theatre to get their message across to kids. Why do you think this is effective?

Pollution Probe

This group works to reduce air and water pollution, and to conserve water and energy.

The David Suzuki Foundation

This foundation works to find ways that we can live in harmony with our natural world. Its members use science and education to share their message.

Zoocheck Canada

This organization works to protect wild animals, especially those kept in zoos and aquariums in Canada. Often, these animals are very poorly treated. Many cannot stay healthy in our climate because Canada is so different from their natural habitat.

Thinking It Through

- Why do you think there are so many different environmental groups in Canada?
- If you were going to join a group that works to protect the environment, how would you choose which one to join? What would you want to know before you make your decision?

Some zoos own large areas of land. This allows them to build special animal habitats that are very similar to those found in the wild. How are these zoos, such as the one shown below in Québec, helping to protect natural resources?



Canadian Companies



I know that some factories can create a lot of pollution. I also know that many of these factories—and other companies—are trying hard to take care of the environment. I did a phone interview with one company to find out how it does this.

What does your company do?

We gather [plant] nutrients, which are found in nature, and provide them to farmers. Farmers around the globe use our products to grow crops.

What natural resources is your company involved with?

[One of the nutrients is called potash.] Potash is a salt that was left over from oceans that evaporated millions of years ago. We get potash from the ground.

What does your company do to make sure we will have enough resources in the future?

We put things back the way we found them. For example, when we mine phosphate from the ground, we not only replace any wetlands that may have been [damaged], we also create additional wetlands.



Voices of Canada

Environmental Report Card

Each year we set goals to try and make our company more environmentally friendly. It's kind of like a report card, only it measures how well we are taking care of the air, water and land... Our job is to help feed the 6.6 billion people who are on the planet today, and to manage our resources so that we may feed the 8 billion people who will be on our planet in just 20 years.

Interviewee from PotashCorp, Saskatoon, SK

Other Solutions

Many Canadian companies have come up with ways to protect the environment and use our natural resources at the same time. Several companies recycle, reduce, and reuse, just as you do at home and at school. Logging companies plant new trees to replace the ones they cut down. Hydro companies put young fish into the waterways they use for electricity.

Some companies invent new products that are friendlier to the environment. Have you ever seen a hybrid car? Hybrid vehicles run on both gasoline and battery power. They create less pollution and use less fuel. How does this affect the environmental footprint they create?



Most hybrid cars look the same as non-hybrid cars.



Think about the items you use every day. Most of them were manufactured somewhere. What do you see here at this mill in Grand Forks, British Columbia? What are the workers doing?

Thinking It Through

- Find out if companies can be recognized for their efforts to minimize negative impact on the environment.

? Critical Inquiry TIP

Evaluating

When you find information about a company on its Web site, remember to ask yourself:

- What is the purpose of the company's Web site?
- What information might a company *not* put on its Web site?
- Where can I go for more balanced information?

What Other Types of Energy Could We Use?

Have you ever thought about how you get the power that is used to run a computer or TV, or to heat your home? In Alberta, most electricity is produced from burning coal. Most homes are heated using natural gas. Both coal and natural gas are non-renewable energy sources. Once they are used up, no more can be produced. Most cars and trucks use non-renewable energy sources—gasoline and oil.

Some people think we should look for and use renewable energy sources. For example, one Canadian company called Hydrogenics is working on using hydrogen—a gas made from water—to power vehicles. Another company is experimenting with using ocean tides to create electricity. What are some other ways we could replace non-renewable energy sources with renewable ones?

Drake Landing in Okotoks, Alberta, is the first community in Canada to depend almost completely on solar energy. Solar panels on every house will provide 90% of the houses' energy needs.



Six Provinces and the Yukon Use Wind Turbines—
Could Produce 20%
of Canada's Energy!

Hydroelectricity Creates
Over 60% of Canada's
Electricity

Ontario has set a goal to shut down coal plants altogether. They are very serious about cleaning up the air, and there simply isn't a better energy choice than wind.

Theresa Howland, Manager of Green Energy Marketing at Vision Quest

Our power plant is burning coal to make electricity and heat in a way that doesn't give off so many emissions.

Genesee Generating Station, Alberta

I saw a commercial today for nuclear energy. It said that nuclear power is cleaner than coal power. But isn't it dangerous, too?



The Seabird Island First Nation housing project has provided us with a unique opportunity to incorporate our traditions but in a modern way... The earth tubes and radiant floor heating and cooling system is far from new technology; our ancestors built their pit homes in-ground where it was cool in the summer and warm in the winter.

Marcie Peters, Seabird Island First Nation Council

Food or Fuel?

Corn is not only a food. It can also be used to make ethanol, a clean-burning renewable fuel. First Nation Ethanol Development in southern Ontario plans to use locally grown corn to make ethanol. The company hopes to start similar businesses across Canada. These businesses will provide jobs for hundreds of First Nations people. They will also help conserve natural gas and create less pollution.



Over to You

1. Consider the viewpoints. What is each person trying to accomplish?

Build Your Skills!

Plan an Interview

Choose a topic in this chapter that interests you. Think of someone you could interview to learn more about the topic. Follow these steps:

1. *Think.* Come up with ten questions. They should help you learn as much as possible about your topic.
2. *Pair.* Review the Skill Power on page 315. With a partner, discuss whether each of the questions is “open” or “closed.” Change each closed question to an open one whenever possible.
3. *Share.* Explain your changes to another pair of students.

Consider Your Environmental Footprint

Make a board game that shows what you have learned about environmental footprints. You will need

- a game board with a Start, a Finish, and spaces in between
- an object to represent each player
- a way to decide how many spaces each player will move in a turn

In some of the spaces on your game board, write things that Canadians do to help the environment. In other spaces, write things we do that hurt the environment. Players should move forward or backward depending on where their object lands.

Persuade an Audience

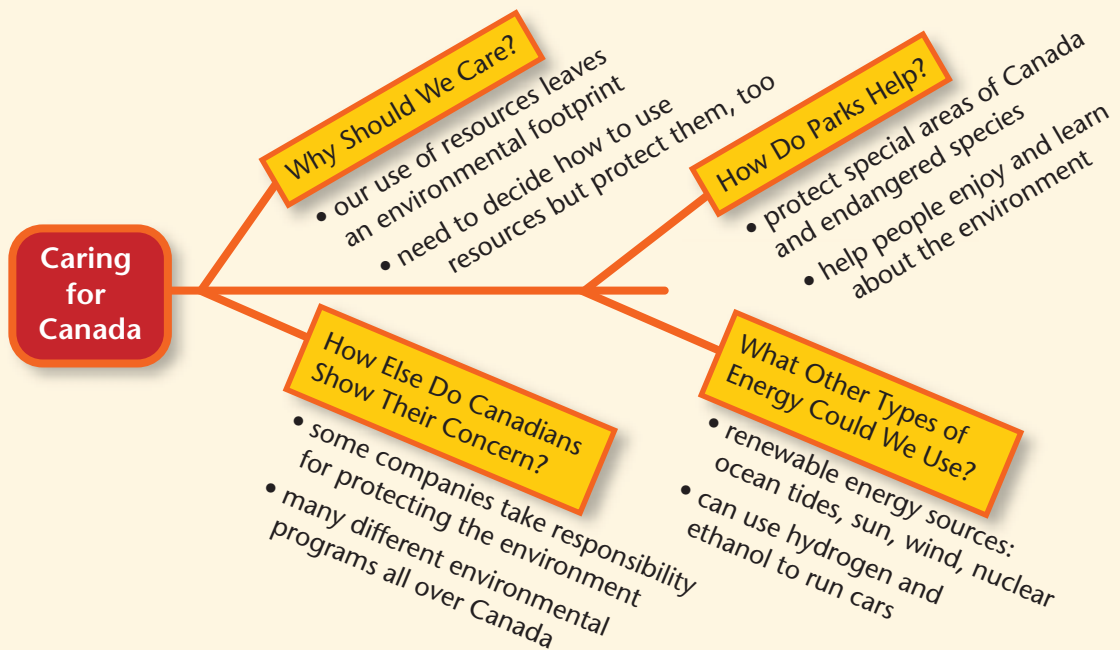
Research a park or a World Heritage Site near you. Find out its purpose. Why is it important? What does it protect? What does it teach? What does it provide to the community? Create a brochure encouraging people to visit the site. Remember to use interesting images and persuasive language.



Putting It All Together



My tour of Canada's protected areas was amazing! I learned so much about the environment and about how Canadians are working together to help conserve our resources.



Review the inquiry questions for this chapter:

- What would happen if some of Canada's resources ran out?
- How do parks and protected areas help **preserve** our natural environment?

Take Time to Reflect



This year you have learned about the diversity of Canada's resources. Animals, lakes, trees, and land are just a few. Which one means the most to you? Why? Write a paragraph about the resource you care about the most, and the ways in which you can help to protect it. Add your work to your Canada Collection.