

Important Concepts . . .

Preview Review



Social Studies Grade 9 TEACHER KEY

W3 - Lesson 5: The Environment

Important Concepts of Grade 9 Social Studies

W1 - Lesson 1 Citizenship, Government, and Identity
 W1 - Lesson 2 Making Laws in Canada and the Role of the
 Media
 W1 - Lesson 3 Youth Criminal Justice
 W1 - Lesson 4 The Charter of Rights and Freedoms
 W1 - Lesson 5 The Charter and the Workplace
 W1 - Quiz

W2 - Lesson 1 Collective Rights
 W2 - Lesson 2 Collective Rights of the French and Métis
 W2 - Lesson 3 Immigration Issues
 W2 - Lesson 4 Immigration
 W2 - Lesson 5 Review
 W2 - Quiz

W3 - Lesson 1 Market and Mixed Economies
 W3 - Lesson 2 The Roles of Government, Labour, and
 Consumers in the Economy
 W3 - Lesson 3 . Quality of Life, Consumerism, and the Economy
 W3 - Lesson 4 Social Programs and Political Parties
 W3 - Lesson 5 The Environment
 W3 - Quiz

Materials Required

Textbook Required
Issues For Canadians

Social Studies Grade 9

Version 6

Preview/Review W3 - Lesson 5

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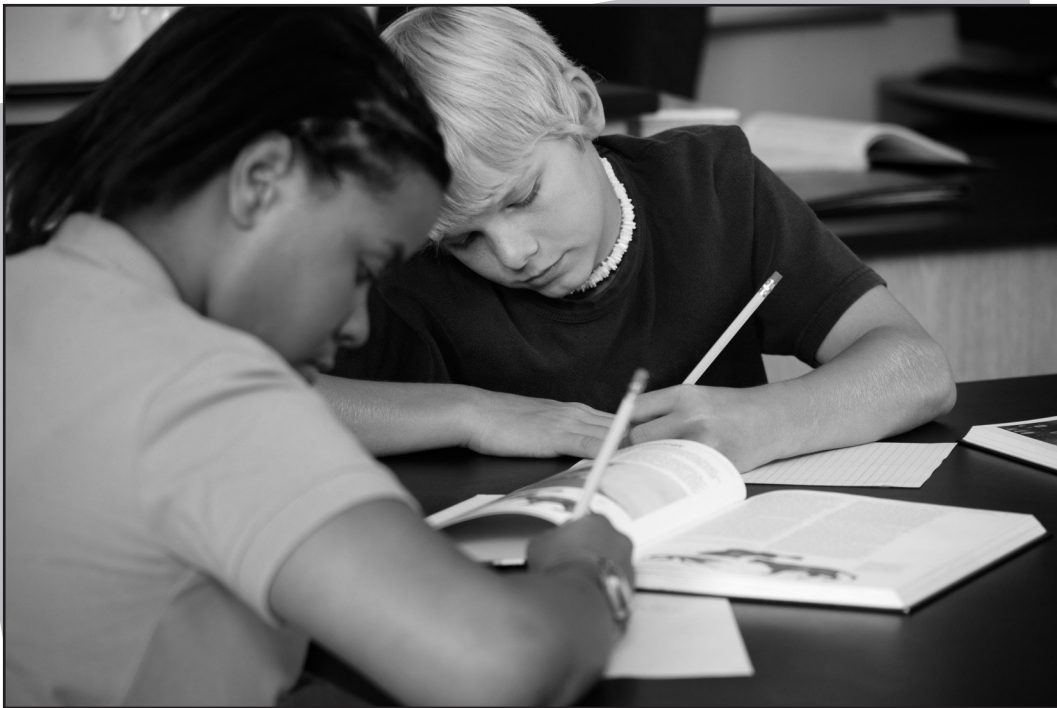
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Preview/Review Concepts for Grade Nine Social Studies

Teacher Key



Week 3 - Lesson 5:

The Environment

OBJECTIVES

By the end of this lesson, you should

- understand how government decisions on environmental issues impact quality of life

GLOSSARY

biodiversity – the different types of plants and animals living in an area or on the planet

carbon tax – a tax levied on the use of fossil fuels to discourage the production of carbon dioxide

climate change – a change of climate, which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere

emissions – pollutants released into the air

environment – includes all living and non-living things occurring naturally on Earth

greenhouse gases (GHG) – the gases that contribute to the warming of the atmosphere

Kyoto Protocol – an international environmental treaty that has the goal of stabilizing greenhouse gas concentrations in the atmosphere

Week 3 – Lesson 5: The Environment

Reading 1: The Environment

In recent years, people have become concerned about issues that affect the **environment**. Since the early 1970s, Canada and the United States have worked to reduce the amount of **emissions** factories were sending into the atmosphere causing acid rain. Today, a major concern is **climate change** and the amount of carbon dioxide that humans add to the atmosphere and how climate change affects global warming and Earth's **biodiversity**.

Depending on an individual's viewpoint, his or her perspective on an environmental issue may differ from that of his or her neighbour. How environmental concerns are dealt with by individuals and governments will depend largely on the perspective of individuals and how their political party's philosophy reflects their point of view.

To understand how people can develop different perspectives and how governments are influenced by economics when making decisions that affect the environment, read pages 303 to 304 in your textbook, *Issues For Canadians*. Then complete Activity 1.



Activity 1: The Environment

To complete Activity 1, fill in the blanks for each of the following sentences by writing the correct word or phrase on the lines provided. If you are working in a classroom, you may discuss this activity. If you are working individually, complete the activity and check your work with your learning facilitator or teacher.

1. Environmental issues arise because of human **activities** that change the **natural** world.
2. **Climate** change can occur when factories release toxins and other pollutants into the air or water.
3. Environmental issues affect **Aboriginal** peoples because their **traditional** ways connect to the land and wildlife.
4. Environmental issues affect **workers** and the types of jobs that will be available.
5. **Consumers** and their demand for products and services can have an **impact** on environmental issues.
6. **Laws** affect the **quality** of our environment.
7. **Economic** decisions involve using **resources** of the natural world.
8. **Consumerism** makes consumers a powerful force in the **economy**.
9. Aboriginal peoples have **collective** rights connected to the **land**.

Reading 2: Climate Change and Greenhouse Gases

For several years scientists from all over the world have noticed that Earth's weather has been changing. Storms have increased in number and intensity. Many areas have seen a drop in rainfall while other areas have noted an increase in moisture levels. Scientists have noted that the glaciers of the world are decreasing at an increasing rate. With the use of weather balloons, rockets, and satellites, scientists have noted an increase in **greenhouse gases** (GHGs) in the atmosphere.

Many scientists have attributed climate change to the increase of greenhouse gases (GHGs) in the atmosphere. Most GHGs come from the emissions of burning fossil fuels. These fossil fuels include natural gas, coal, oil, and gasoline. People drive cars, factories produce goods, and families heat their homes, which all contribute to the emissions of GHGs.

In 1997, many countries signed the **Kyoto Protocol**. Under the Protocol, 37 industrialized countries agreed to the reduction of the most harmful greenhouse gases.

To understand how climate change could affect Canada, the level of CO₂ emissions Canada produces, and Canada's commitment to the Kyoto Protocol, read pages 308 and pages 310 to 317 in your textbook, *Issues For Canadians*. Then complete Activity 2.



Activity 2: Climate Change and Greenhouse Gases

Answer the following questions in complete sentences. If you are working in a classroom, you may discuss this activity. If you are working individually, complete the activity and check your work with your learning facilitator or teacher.

1. How do greenhouse gases affect Earth?

Greenhouse gases are trapped in the upper atmosphere and behave like a greenhouse by capturing the heat from the sun, which in turn heats up Earth causing climate changes.

2. Identify **three** possible consequences on Earth of climate change.

Students' should identify any three of the following points.

- *Rising sea levels*
- *More severe weather*
- *Disruption of ecosystems and freshwater supplies*
- *Loss of wildlife species*
- *Longer growing seasons in some regions*
- *Flooding along coastlines*

3. According to the map on page 310 of your textbook, **Issues For Canadians**, which area of Canada will see the largest shift in temperature by 2099? Which areas will experience the smallest shift?

- *The area of Canada that will see the largest shift in temperature by 2099 will be the islands in the Arctic Ocean.*
- *Newfoundland and Labrador, Nova Scotia, Prince Edward Island, and southern New Brunswick and British Columbia will be the areas of Canada that will experience the smallest shift in temperature.*

4. Using the information on pages 312 to 314 of your *Issues For Canadians* textbook, answer the following questions.

- a. Which **two** provinces of Canada have the highest emissions of CO₂?

• ***Alberta and Ontario emit the most CO₂ emissions in Canada.***

- b. What factors contribute to their emission output?

• ***Alberta has a large output of greenhouse gases due to the oil industry and the coal-fired plants used to generate electricity.***

• ***Ontario's output of greenhouse gases is due to the large manufacturing sector, which includes steel mills and plants that process metal ores.***

- c. What percentage of global CO₂ emissions does Canada contribute?

• ***Canada contributes 2% of the CO₂ emissions into the atmosphere.***

5. Why do international negotiations on climate change focus on developed countries to reduce greenhouse emissions?

International negotiations on climate change focus on developed countries because developed countries have higher greenhouse emission outputs so they contribute more to climate change. Developed countries are less affected by the negative economic aspects of reducing emissions.

6. What is the Kyoto Protocol? Why did the United States refuse to sign it?
- *The Kyoto Protocol was the first climate-change plan that countries of the world negotiated to reduce greenhouse gas emissions.*
 - *The United States took a stand against the Kyoto Protocol partly because President Bush doubted that human actions were causing climate change. Also, the United States thought the agreement should not exempt developing countries.*
7. Why did Canada change its response to the Kyoto Protocol?
- Canada's position on the Kyoto Protocol has changed depending on the political party in power. For example,*
- *Canada's Liberal government ratified the Kyoto Protocol in 2002, but did not make decisions that would reduce Canada's overall emissions.*
 - *In 2006, Canadians elected the Conservative government, which announced that Canada would not meet its targets under the Kyoto Protocol. The government said the targets would damage the economy and that emissions were rising instead of falling.*

8. Identify **two** examples of actions taken by government to reduce GHG emissions (in place in 2007).

Students' responses should identify any two of the following points.

- *Taxes were reduced for those who bought transit passes.*
- *Funds were provided to produce biofuel.*
- *Funds were provided to develop renewable energy technologies.*
- *The Clean Air Act was passed to set new emission standards for most plants and industries in Canada.*

9. How might government decisions about environmental issues affect your quality of life? Include **two** or **three** specific examples in your responses.

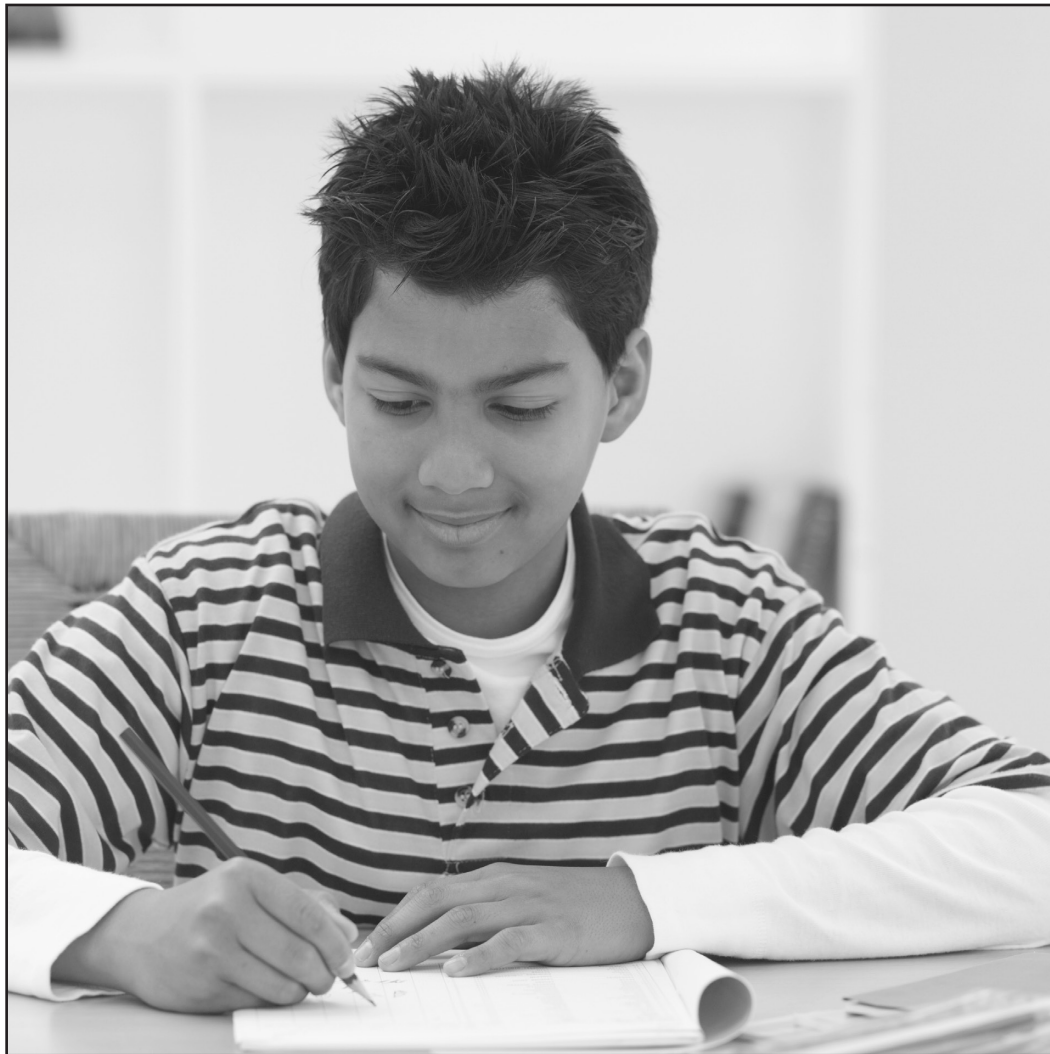
Students' responses will vary. Look for students to provide logical and reasonable explanations of how their quality of life may be affected by government decisions about the environment. Students are required to include two or three specific examples in their responses.

The completion of Activity 2 concludes Week 3 – Lesson 5.

To complete your study of Week Three, you will write a quiz that includes material from the five lessons.

REVIEW

If time permits, review concepts covered in Week 3 – Lessons 1 to 5 before you write the Week 3 Quiz.



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