
SPATIAL SKILLS/ACTIVITIES

GRADE 4: PEOPLE AND ENVIRONMENTS: POLITICAL AND PHYSICAL REGIONS OF CANADA

ABSTRACT:

Students will investigate how human activities should balance environmental stewardship with human wants/needs.

GUIDING QUESTION:

How do we determine human activities and different land uses by reading a map?

SPATIAL SKILLS FOCUS:

Graphing

LEARNING GOALS

- We are learning use a variety of perspectives to successfully analyse the challenges associated with balancing human needs with environmental stewardship
- We are learning to analyse, interpret, and create data related to Canada's physical regions

CONCEPTS OF DISCIPLINARY THINKING:

Perspective

This concept refers to the ways in which different individuals or groups view something (e.g., an issue, event, development, person, place, process, interaction). Students learn that different groups have different perspectives, which depend on factors such as beliefs, social position, geographic location, and so on.

OVERALL EXPECTATIONS

B2 Inquiry: Use the social studies inquiry process to investigate some issues and challenges associated with balancing human needs/wants and activities with environmental stewardship in one or more of the political regions of Canada.

SPECIFIC EXPECTATIONS

B2.1 formulate questions to guide investigations into some of the issues and challenges associated with balancing human needs/wants and activities with environmental stewardship in one or more of the political and/or physical regions of Canada

B2.4 interpret and analyse information and data related to their investigations, using a variety of tools (*e.g., use a graphic organizer to help them determine the interrelationship between a region's physical features and tourism or recreation; plot population trends in a specific region and compare them to a graph showing industrial development in the same region; use a decision-making chart to determine the best location for a new hydroelectric dam; use a double bar graph to help them determine the effect of an increase in tourism on waste production in a region*) Sample question: "How might you use an ideas web to help you determine the effect of the closing of a pulp and paper mill on the people in the community and on the environment?"

Prior to Spatial Skills Activities

Using InfoCanada Geographical Regions series (see additional resources), explore some images related to Canada's physical regions. Compare and contrast two or more of the regions of Canada and list question that arise. Identify human needs and wants related to the images. For example, areas are used for housing, recreation, industry or food production.

In one of the following sections, investigate what types of industries are found in different regions of Canada. What is your region known for?

Compare and contrast two or more of the physical regions of Canada and list questions that arise. How do the natural features of the environment impact what the land is used for? Sample question:

- How is B.C. similar or different than Ontario?
- How are the industries related to the environment?
- How do the industries relate to the needs and wants of people?
- What issues may be associated with the industries?

Investigation A:

Examine images of different industries in various regions across Canada. What needs are being met and what issues are posed? For example, mining industries provide jobs, but it also has an impact on the environment.

<http://www.canadiangeographic.ca/cgKidsAtlas/market.asp>

Investigation B:

Learn more about the mining industry in Saskatchewan by using the interactive map tool. Click on layers and mineral potential to investigate mineral deposits. A map legend is also available by clicking on the legend tab.

<http://www.saskmining.ca/map/Map/map.html> (Saskatchewan mining association)

Explore Ontario's Mining Industry by clicking on different locations to get more information.

<http://www.investinontario.com/Documents/English/mining/map.html> (Invest in Ontario interactive mining map)

DETAILED SPATIAL SKILLS ACTIVITIES

Canada's Food Sources

Explain how issues and challenges arise when balancing human needs/wants and activities with environmental stewardship in one or more of the political regions of Canada.

Do you know where your food comes from? Watch Eat Real Eat Local – this video explains how far food sometimes travels to get to your local grocery store. What are some of the issues discussed in the video? How does it relate to day-to-day life?

Whose perspective is presented?

<http://www.youtube.com/watch?v=dIsEG2SFOvM>

Learn more about the Ontario Food Terminal (how does food get to Ontario and how is it distributed? Where does it come from and how much of it is local?)

<http://www.oftb.com/home>

Learn about locally produced fruits, vegetables, and meat and the environmental impact of sourcing food from other parts of the country or world. Identify the perspective identified in the following resources. Also investigate why so many foods should be imported.

http://fogcity.blogs.com/downloadable_docs/10reasons.pdf

<http://www.ontario.ca/foodland/why-buy-local> (created by Foodland Ontario to find out what grows locally and what produce is in season at what time of year).

- If your school has a nutrition program, investigate where the food purchased comes from. Show your findings on a graph (<http://nces.ed.gov/nceskids/createagraph/default.aspx?ID=6c2421a39a4242a39a0c2339cb0e9de2>). Where does a majority of the food come from?

Based on your findings, what suggestions could you make to reduce the environmental impact of the food you eat?

- Using a web tool such as Google Maps, determine the distance your food had to travel. Plot on a world map (digital or 2D) where your food came from and how far it had to travel to get to your school
- Using Excel or similar graphing software, make a bar graph of how far food items had to travel to reach your school. What kinds of items were not obtained locally?
- Use the food guide to determine recommended foods and locate places in Canada that produce the food and place it on a map. Make a graph of how far food items had to travel to reach your school.
- Discuss the impact that food choices have on the environment

ASSESSMENT

When students are discussing needs and wants, circulate and offer descriptive feedback. Offer each student ideas for tweaking, rethinking, and discussing their learning. Observe how they use evidence to support their opinions.

Are they able to extract relevant information from the graphs they analysed or made? How did the data help them to understand the issues?

What type of graph did the students make? What was the reason for their choice?

EXTENSIONS

Use the following for a more detailed investigation of food production:

- What is being done to address the environmental impact of our food sources? (produced by Conference Board of Canada)
http://www.conferenceboard.ca/press/newsrelease/13-0808/canada_s_food_system_needs_environmental_overhaul.aspx
- Statistics Canada – Food in Canada – examine tables, charts, and graphs
<http://www.statcan.gc.ca/pub/16-201-x/2009000/part-partie1-eng.htm>
- From looking at the graph farm and non-farm population in Canada, 1931 to 2006, what can you infer about the reduction of farms and the increase in non-farm populations? What impact is that going to have on where

we get our food? What other graphs provide useful information about your inquiry?

- A resource for teachers is available at the Aboriginal Education Strategy Website: <http://www.edu.gov.on.ca/eng/aboriginal/elemStrategies.html>
Learn a little more about the Aboriginal contribution to Ontario's economy - "Students learn about goods and services produced by Aboriginal communities in Ontario and how they are exchanged for goods and services from other Ontario communities."
- "Grade 4 Social Studies - Exchanges Between Communities." *Aboriginal Perspectives: A Guide to the Teacher's Toolkit: Teaching Resources and Strategies for Elementary and Secondary Classrooms*. Toronto: Ministry of Education, 2009. N. pag. Print.

ADDITIONAL RESOURCES

Canada's Natural Resources by Carrie Gleason ISBN # 9781443107952

Canada's Regions by Jennette MacKenzie (Nelson Literacy 4) ISBN# 9780176305062

Canada From Above: A Photo Journey by Heather Patterson ISBN # 9781443102247

The Canadian Shield by Wayne Andrew, Andrew Griffin, and Wendy Mader ISBN # 9780176260972

The Arctic by Wayne Andrew, Andrew Griffin, and Wendy Mader ISBN# 9780176260989

The Great Lakes Lowland by Wayne Andrew, Andrew Griffin, and Wendy Mader ISBN# 9780176261009

The Cordillera by Wayne Andrew, Andrew Griffin, and Wendy Mader ISBN# 9780176260965

The Interior Plains by Wayne Andrew, Andrew Griffin, and Wendy Mader ISBN# 9780176260958

The St. Lawrence Lowland by Wayne Andrew, Andrew Griffin, and Wendy Mader ISBN# 9780176261016

The Appalachian Highland by Wayne Andrew, Andrew Griffin, and Wendy Mader ISBN# 9780176260996



Human Footprint: Everything You Will Eat, Use, Wear, Buy, and Throw out in Your Lifetime (ISBN 978-1-4263-0767-6)

Kirk, Ellen. *Human Footprint: Everything You Will Eat, Use, Wear, Buy, and Throw out in Your Lifetime*. Washington, D.C.: National Geographic, 2010. Print.

National Geographic Human Footprint Interactive Game

http://education.nationalgeographic.com/education/media/human-footprint-interactive/?ar_a=2

Farmer Will Allen and the Growing Table (ISBN 978-0-9836615-3-5)

Martin, Jacqueline Briggs, Eric-Shabazz Larkin, and Will Allen. *Farmer Will Allen and the Growing Table*. N.p.: n.p., n.d. Print.

World Wildlife Fund- information about the environmental impact of farming

http://wwf.panda.org/what_we_do/footprint/agriculture/impacts/

Coastal Alliance for Aquaculture Reform: Farmed and Dangerous – the environmental impact of salmon farming in British Columbia

<http://www.farmedanddangerous.org/salmon-farming-problems/environmental-impacts/>

Do You Know Where Your Food Comes From?

Morris, Neil. *Do You Know Where Your Food Comes From?* Chicago, IL: Heinemann Library, 2006. Print.

“Using shoes as a metaphor, students research and share information about the differences between the physical regions of Ontario and Canada.”

"Grade 4 Social Studies – Walking in Someone Else's Shoes." *Aboriginal Perspectives: A Guide to the Teacher's Toolkit: Teaching Resources and Strategies for Elementary and Secondary Classrooms*. Toronto: Ministry of Education, 2009. N. pag. Print.

<http://www.edu.gov.on.ca/eng/aboriginal/strategygr04socwalking.pdf>

National Geographic – Map Maker interactive (customize maps by province, population density, language diversity, climate, CO2 emissions etc.)

http://education.nationalgeographic.com/education/mapping/interactive-map/?ar_a=1