

INTRODUCTION TO GLOBAL GEOGRAPHY UNIT 1



Why Learn Geography?

The answers to why you should learn geography and the geographic method are explained in the first unit of the text. Read Chapter 1, “*The Geographic Approach*” pages 2-17 in *Global Connections*.

The study of geography can be traced to ancient Greece. The ancient Greeks were influenced by the sea, the mountains and the Peloponnese peninsula. The Greek environment created a need to understand climate, trade, landscape and the sea. The interaction of the Greeks with their natural world allowed them to sail the Aegean and Mediterranean Seas, to secure foodstuffs and trade olive oil. The natural resource wealth generated from Athenian silver mines paid to construct a naval fleet. This naval fleet turned back the Persian invasion at the Battle of Salamis in 480 BCE.

The Greeks understood their physical world was interconnected. The landscape shaped their economy and climate and strongly influenced Greek cultural development.

Ancient societies used maps and created other geographic records to know when and where to plant, to know when rivers would rise and flood, and to know where communal buildings and residential housing should be constructed.

Geography also played a role in many battles. Alexander the Great campaigned with a geographer. The geographers’ knowledge enabled Alexander’s troops to forage for food

and water and to allow Alexander to plan battles in particular locations where he had the advantage. Alexander recognized the geographic features favouring his troops. His knowledge of place ensured that the Greek culture spread and absorbed the beneficial characteristics of the cultures his army encountered.

Alexander had a practical understanding of the benefits derived from a knowledge of geography. On an intellectual level, he understood the benefits to be shared by all peoples from cultural interchanges and through economic exchanges. To provide for easy defence, economic growth and cultural exchange, Alexander had geographers propose transportation routes to speed trade and to assure armies could rush to defend his borders.

LOCATION

Location forms the basis of decisions in today’s society. During Alexander’s conquest of the known world location was equally significant. Examine the “location” questions in the text, page 3.

Imagine the location questions Alexander might have considered during his conquest of Assyria, Lebanon and Persia in 334-323 BCE.

THE FATHER OF GEOGRAPHY

The ancient Greek Eratosthenes (276 BCE) may be considered the father of geography.

He was born around 276 BCE and became the administrator of the Great Library at Alexandria in 240 BCE. While in Alexandria he wrote *Geography*, a treatise about the ancient world. Geography means “writing

about the earth” in Greek. Eratosthenes’ *Geography* included torrid, temperate, and frigid zones as geographic concepts.

Eratosthenes used the Syene Well to determine the circumference of the Earth. It was known that sunlight only struck the bottom of the well on the summer solstice. Knowing this, Eratosthenes calculated the Earth’s circumference.

To calculate the Earth’s circumference he used the approximate distance between Syene and Alexandria (787 km). This figure was given to Eratosthenes by caravan traders. On the day of the solstice, he measured the arc angle of the shadow in the Syene Well equal to 7.2 degrees. The formula Eratosthenes developed and used in his calculation was $\frac{7.2}{360} = \frac{787}{x}$. By cross multiplying the distance between Alexandria and Syene (787 km) by 360 degrees in a circle and dividing by the degrees in the arc (7.2°), Eratosthenes was able to determine the Earth’s circumference. Eratosthenes’ measurements were slightly off due to minor errors in his calculation, however his calculation of 39,350 km is still very close to the actual circumference, which is 40,075.16 km.

ACTIVITY 1 – 20 POINTS

1. Turn to page 6 of *Global Connections* to complete either questions 1. a, 1. b, and 1. c or question 2 of the *Independent Study*. (15 points)
2. Read page 9, “Location”. Grocery chains in Nova Scotia have constructed stores near

major highway interchanges. Write three *location* questions company management would ask before planning to construct a store near an interchange. (5 points)

ACTIVITY 2 – 20 POINTS

Halifax, Nova Scotia in 2003 has a new pesticide by-law. Read the by-law overview, Chronicle Herald article, and the brochure on the following pages of this guide. Research the topic using EBSCO, the public library, the Internet and/or other sources. Write a two-page report which demonstrates your geographic understanding of the issues leading to the development of the by-law.

To prepare your report consider, “The Concepts of Geography” (pages 9-13). Your response to the by-law should focus on three of the fundamental geography concepts: location, region, spatial pattern, spatial interaction, human/ environmental interactions and culture. (20 points)

A Brief Overview - By-Law P - 800

Halifax regional council voted 17-6 to phase out lawn chemicals by April 2003.

The by-law applies to outdoor applications for maintenance of plants and turf to rental and residential properties, or to properties owned by the municipality. The by-law does not apply to: agricultural, forestry, commercial, or institutional properties. The by-law does not apply to all pesticide use indoors, or for the control of biting insects (mosquitos).

The by-law applies to pesticides registered by the federal government. Pesticides approved by the federal government under the Pest Control Products Act are assigned an PCP number to identify the pesticide. A sign must be posted 24 hours prior to use and remain posted four days after a pesticide application. Signs must indicate the commercial name of the pesticide.

HALIFAX GRAPPLES WITH LAWN ORDER ISSUE - PESTICIDE BYLAW MAY BE HARD TO ENFORCE

By Michael Lightstone, July 13, 2000. *This article courtesy of The Halifax Herald Limited.*

Halifax Regional Municipality won't use yard police or random grass testing to enforce its new lawn chemical bylaw, a senior staffer said Wednesday. Municipal solicitor Wayne Anstey said city hall will act on complaints and rely on witnesses and evidence to try to catch offenders.

Though he said the municipality "would not be actively patrolling" residential neighbourhoods, the bylaw could pit one neighbour against another.

"If a neighbour, for example, saw someone come out with a bag of (lawn chemicals) and dump it into a spreader and then start walking up and down the lawn . . . then that would be pretty good evidence of the fact that a person was putting a pesticide on the lawn," Mr. Anstey said.

"And if the (bylaw enforcement) officer then went to the residence and found the bag, from that they could collect physical evidence and pursue a prosecution, he said.

Bylaw officers can issue violators a \$100 ticket, Mr. Anstey said, or take more serious cases to court. The maximum fine is \$2,000 or 30 days in jail.

Halifax regional council voted 17-6 Tuesday night to phase out lawn chemicals by April 2003. Mr. Anstey said the new rules are not in place yet because the bylaw must go through second reading at council on Aug. 15 and then be announced in local advertisements.

The law should be in effect by Aug. 19, but council has acknowledged it won't be easy to crack down on sprayers.

"We would be faced with the same difficulties as we are with respect to a lot of violations," said Mr. Anstey, referring to evidence-gathering challenges and counting on the testimony of witnesses.

"We would not be doing any chemical testing (on lawns) or that sort of thing."

Other details of Bylaw P-800, which regulates the use of pesticides, herbicides and insecticides:

- An immediate ban on spraying on municipally owned property, a policy now in place.
- A public education program about the new rules to be developed by city hall

staffers and implemented in the future.

- In April 2001, a registration system will allow people with chemical sensitivities to identify their homes to HRM so neighbours can't spray within 50 metres of them. Chemically sensitive people will need to send letters from two doctors to city hall.
- Also by April 2001, there's to be a 50-metre pesticide ban around schools, hospitals, churches, day-care centres, playgrounds and other public areas.
- In April 2003, a complete ban on lawn chemicals on residential properties

ACTIVITY 3 – 30 POINTS

You are employed as a Regional Health Officer in Nova Scotia. Recent public concern over the spread of West Nile Virus has propelled the need for an action plan to address public concerns and to educate the public about the disease. The plan must also address the need to limit the opportunity for the virus to spread.

1. Prepare a background report on West Nile Virus following the pattern in the article *“Disease as a Geographical Problem”* text pages 5 and 6. Research the topic using EBSCO, the public library, the Internet or other source. Locate statistics to map the North American location of the disease since 1999. (10 points)
2. Prepare the action plan to include at least six recommendations. See the *“Action Plan Process”* and sample table in Fig 1-2. (10 points)

3. Use the points you recommend in the action plan to create a public service announcement, poster or brochure. (10 points)

THE ACTION PLAN PROCESS

The action plan process can help you to develop a response to Activity 3, question 2. Read the Action Plan Process steps and create a table similar to Fig 1 - 2, stating the actions needed, the objectives, who is expected to carry out the tasks and the time-line indicating when each task is to be completed.

STEP 1 – DEFINE GOALS

Action plans specify the actions needed to address short and long term goals. A goal is a vision statement: what is to be achieved. The actions specify how to reach each goal by defining who will complete each action and when.

STEP 2 – SET SPECIFIC AND MEASURABLE OBJECTIVES

Action plans set specific objectives and measurable results. The results must be measurable, or you cannot evaluate the success of your action plan. An example of a specific objective would be:

"Through the use of a mail-out campaign and public service announcements on television and radio, the N.S. government will reduce preventable injuries in the workplace by 55 per cent by June 2006."

In June of 2006, the program can be evaluated by calculating the number of workplace injuries before the campaign started and after the campaign is finished to see if the goal of a 55 per

How the By-Law Works

The Pesticide By-Law (P-800) applies to all residential and municipal properties in HRM and refers to the outdoor use of pesticides, insecticides, and herbicides for the maintenance of trees and shrubs, flowers, and other ornamental plants and turf. The By-law provides some protection for those who may suffer from exposure to pesticides. The new law has a phased approach which provides immediate protection for special population groups, while allowing the community and industry to adapt over a two-year transition phase:

Year 1: As of August 19, 2000 an immediate ban on the use of pesticides on municipal property was established.

Year 2 and 3: Commencing April 1, 2001 a ban was issued on the use of pesticides on residential properties in HRM located within a 50 metre radius of:

- a property registered as being occupied by persons at risk who provide two physicians letters
- the boundary of any property containing any school, licensed daycare, playground, park, church, licensed seniors' residence, university, or hospital.

Year 4: Beginning April 1, 2003, a general ban on the use of pesticides will apply to all properties in HRM affected by the By-Law.



Sinage

When a pesticide application is to take place on a residential property, the owner of the property or any commercial pesticide applicator must post signs in a prominent place on the property for at least

Warning - Pesticides in Use

All contact with the portion of the treated property upon which the pesticide application has taken place must be avoided.



Pesticide PCP #: _____
 Common Name: _____
 Trade Name: _____
 Date Used: _____
 Contact Phone #: _____
 Company Name: _____
 (If commercially applied)

Actual sign must be at least 25 cm by 25 cm. Consult the by-law for detailed requirements.

five days. Twenty four hours prior to the application and then four days after the pesticide application.

Where can I get a sign? You can make your own, provided it meets the prescribed requirements or you can purchase a sign through a number of retailers.

Permitted Products

Pesticides that can still be used include (Administrative Order 23):

- Insecticidal or Herbicidal soap
- BT (*Bacillus thuringiensis*)
- Nematodes
- Other biological control organisms
- Animal repellents
- Rodenticides
- Injected tree treatments
- Sticky media
- Borax
- Dormant or Horticultural oils
- Bordeaux mixture and other sulphur compounds
- Lime sulphur
- Ferric phosphate
- Pruning paint
- Peromone traps
- Pyrethrum (or pyrethrin)
- Diatomaceous earth

These pesticides are exempt from signage requirements.

For More Information On info/fact sheets: what the permitted products can be used for; how to register your property for medical reasons; how to obtain a permit to spray, signage requirements; or to access details on our public awareness sessions, visit one of HRM Service Centres or log on to our website at www.region.halifax.ns.ca



WEST NILE VACCINE POPULAR FOR HORSES. OWNERS PROTECT INVESTMENT

BY DAVENE JEFFERY - STAFF REPORTER *TUESDAY, FEBRUARY 18, 2003*

THIS ARTICLE COURTESY OF THE HALIFAX HERALD LTD.

Horse owners around the province are trying to protect their animals against West Nile virus.

While there is no vaccine that protects humans against the virus, which can be fatal, veterinarians in Nova Scotia are busy inoculating horses before mosquito season starts.

"I think it's worth it. You don't want your horse to die," said Kathrin Lyon, owner of Woodhaven Stables in Elmsdale.

Ms. Lyon owns six horses and has made the vaccination mandatory for all horses boarding at her farm.

There were only four confirmed cases of West Nile Virus in birds in the province last year - none in horses.

In Ontario, Quebec, and Manitoba combined, there were over 300 cases reported in horses last year, Dr. Paul Kendall of the Sackville Animal Hospital said.

The vaccine cost roughly \$30 per shot, and two shots are required the first year and one in subsequent years, Dr. Kendall said.

"It's the only thing available to prevent (West Nile virus)," he said.

The vaccine is 60 per cent effective, the vet said.

The Health Department plans to step up its campaign to inform Nova Scotians about the virus.

It's not clear how the recent cold spell will affect the mosquito population and spread of the virus this year, said Dr. Maureen Baikie, the province's associate medical officer.

"It's pretty hard to say what the risk is," Dr. Baikie said.

Mosquitos can live through the winter in areas like sewers and some of the flying pests can even survive freezing, she said.

Much of the risk, however, does not come from the virus surviving here over the winter, but from migratory birds moving north in the spring and summer, she said.

The province will continue to maintain its surveillance systems of reporting dead birds, studying the mosquito population and reporting any cases of virus in humans as well.

Although mammals like horses and humans can catch the virus from mosquito bites, the disease is believed to stop with them.

"Birds are the reservoir," Dr. Baikie said.

Infected birds carry a very high level of the virus in their blood. Infected mammals do not. A mosquito biting an infected person would not pick up enough of the virus to pass it on.

Among horses, the virus is fatal in up to 30 per cent of cases, Dr. Kendall said.

"That's a huge economic loss across North America," he said.

The horse vaccine, although available in the United States for the past few years, was only licensed in Canada last year.

"We have to sign forms and keep records of who we vaccinated for the next six years," Dr. Kendall said. It's part of the condition of the release (of the vaccine) into Canada," he said.

Most people who become infected with West Nile virus will have no symptoms or experience mild, flu-like symptoms. The elderly, young and those with weak immune systems, are at greater risk of serious health problems.

Infected horses can exhibit a range of symptoms from being mildly ill to developing brain and spinal cord damage requiring them to be destroyed.

Information on West Nile virus in humans and animals is available on Health Canada's Web site.

Fig 1-2

Goal (what is to be accomplished)	Objectives (how the goal will be accomplished)	Who (person designated to perform task)	Timeline (when tasks are to be completed)

cent reduction in injuries was met. Objectives are clear statements of the specific activities required to achieve goals.

STEP 3 – SET ACHIEVABLE OBJECTIVES

When identifying objectives, ask the following questions:

- Can the objectives be accomplished?
- Who is going to do what work and when?
- How can the objectives be measurable?

STEP 4 - TASKS AND TIMELINES

Set dates for tasks to completed and designate people to perform each task. Keep in mind that these are guidelines, not rules set in stone, but you should be able to explain and justify deviations from what has been laid down. By designating dates and people, you allow the team members to plan.

ORGANIZE YOUR INFORMATION

When writing an action plan, a table is a useful tool. Fig 1-2 above is an example of an action plan table.

ACTIVITY 4 – 20 POINTS

Read “*Working Together*” on page 15 of the text. Read *Selection A, B* and *C*. Choose two of the selections to respond to in this activity.

Decide which of the six fundamental geographic concepts: location, region, spatial patterns, spatial interactions, human/environmental interactions, and culture apply to each selection. Copy Fig 1-3 on the next page and write a sentence(s) from each selection to support your decision.

ACTIVITY 5 – 20 POINTS

In Activity 4 you read “*Working Together*” on page 15 of the text. Now, follow the directions in question 9. a) page 16. Compare-and-contrast two of the selections under the six fundamental geographic concept headings: location, region, spatial patterns, spatial interactions, human/ environmental interactions, and culture. Copy and complete Fig 1-4 table to provide your response to Activity 5.

Fig 1-3

Selection _____ .

Geographic Concept	Sentence(s) showing the geographic concept
Location	
Region	
Spatial pattern	
Spatial interaction	
Human/environmental interaction	
Culture	

SELECTION _____ .

Geographic Concept	Sentence(s) showing the geographic concept
Location	
Region	
Spatial pattern	
Spatial interaction	
Human/environmental interaction	
Culture	

Fig 1-4

How are the two selections alike in terms of: location, region, spatial patterns, spatial interactions, human/ environmental interactions and culture?		
	Selection _____	Selection _____
Location		
Region		
Spatial pattern		
Spatial interaction		
Human/environmental interaction		
Culture		