

# Answer Key

## "What is Geography used for and what is a Geographer?" Trivia Question

A Greek named Thales. Thales was born in 640 B.C. and died in 546 B.C. He lived on the shores of the Aegean Sea.

## "What is Geography used for and what is a Geographer?" Comprehension Exercise

1. political 2. urban 3. geomorphology 4. cartography 5. agriculture 6. biogeography  
7. marketing 8. industrial 9. population 10. historical

## "Geography Then and Now" Comprehension Questions

1. The first early geographers had no accurate means of measuring distances and direction or keeping records of their discoveries.
2. Greeks.
3. Geographers study the earth's surface and how humans use the land and change it. They study populations and industries. They study the climate and how it affects the land. They observe carefully, and accurately report and record.
4. Maps give us the information on where we are located in reference to other places. They show us landforms, continents, oceans, mountain ranges, boundaries, weather and climate conditions, and much more useful and necessary information.

## "Geography Then and Now" Trivia Question

One early unit of length was to "pace" one distance from another. The distance was measured by how many times the right foot swung in front of the left foot. The pace was a unit of length.

## "Geography Then and Now" Plurals

1. cavemen 2. years 3. feet 4. berries 5. animals 6. explorers 7. rocks 8. rivers 9. clouds  
10. families 11. friends 12. paths 13. discoveries 14. opportunities 15. industries 16. boundaries  
17. lives 18. maps

## "Our Country – Canada" Exercise

- |                      |                     |                           |
|----------------------|---------------------|---------------------------|
| 1. Nova Scotia       | 2. Newfoundland     | 3. Prince Edward Island   |
| 4. New Brunswick     | 5. Quebec           | 6. Ontario                |
| 7. Manitoba          | 8. Saskatchewan     | 9. Alberta                |
| 10. British Columbia | 11. Yukon Territory | 12. Northwest Territories |

13. Nunavut

- 
- |                |                |                  |
|----------------|----------------|------------------|
| 1. Halifax     | 2. Fredericton | 3. Charlottetown |
| 4. Quebec      | 5. Toronto     | 6. Victoria      |
| 7. Regina      | 8. Whitehorse  | 9. Yellowknife   |
| 10. Winnipeg   | 11. Edmonton   | 12. Iqaluit      |
| 13. St. John's | 14. Ottawa     |                  |

**"The World -- Its Continents and Oceans"**

**Introduction  
Questions**

1. North America, South America, Africa, Europe, Asia, Oceania, and Antarctic.
2. Pacific and Atlantic oceans. The largest is the Pacific.
3. Indian Ocean.

**"The World -- Its Continents and Oceans"**

**Trivia Question**

73%

**"The World -- Its Continents and Oceans"**

**Part 1  
Questions**

5. 44,000,000 square kilometers
6. 3 out of every 5 people
7. -70 degrees Celsius to 49 degrees Celsius
8. It means Europe and Asia.
9. To the north is the Arctic Ocean and to the south is the Indian Ocean.

**"The World -- Its Continents and Oceans"**

**Trivia Question**

China

**"The World -- Its Continents and Oceans"**

**Part 2  
Questions**

11. Because of its location in respect to the equator.
12. Kilimanjaro.
13. Alluvial soils are soils deposited by rivers that have overflowed their banks.
14. The Nile River.

15. Sahara. It is in northern Africa.
16. Mahogany/ebony

**"The World -- Its Continents and Oceans"**  
**Trivia Question**

Sudan

**"The World -- Its Continents and Oceans"**  
**Part 3**  
**Questions**

18. Canada, United States, Mexico, Greenland, all the countries of Central America, and the island countries of the Caribbean.
19. The highest point is Mount McKinley. The lowest point is Death Valley.
20. The Green Mountains of Vermont, White Mountains of New Hampshire, and Blue Ridge Mountains of Pennsylvania and Georgia.
21. The Great Lakes.
22. Niagara Falls.

**"The World -- Its Continents and Oceans"**  
**Trivia Question**

Lake Superior

**"The World -- Its Continents and Oceans"**  
**Part 4**  
**Questions**

24. High, rugged mountains.
25. The extreme southern tip of the continent.
26. By winds and the warm tropical currents and cold Antarctic currents.
27. December to February. June to August.

**"The World -- Its Continents and Oceans"**  
**Trivia Question**

Venezuela

**"The World -- Its Continents and Oceans"**  
**Part 5**  
**Questions**

29. Two miles thick.
30. 90%
31. The snow does not melt so the build-up of snow grows higher every year.
32. -126.9 degrees Fahrenheit.

**"The World -- Its Continents and Oceans"  
Trivia Question**

No

**"The World -- Its Continents and Oceans"  
Part 6  
Questions**

34. 800 kilometers.
35. Cape Nordkyn. Point Marroqui in Spain.
36. The Alps stretch from France to Yugoslavia.
37. The Caspian Sea.

**"The World -- Its Continents and Oceans"  
Trivia Question**

Paris

**"The World -- Its Continents and Oceans"  
Part 7  
Questions**

39. Because of its location below the equator.
40. Wool.
41. A mountain range in Australia.
42. The world's largest coral formation off the Australian east coast.
43. Duckbill or platypus/spiny anteater/kangaroo/koala/dingo/kookaburra /lyrebirds/cockatoo
44. It is located in the Southern Hemisphere.

**"The World -- Its Continents and Oceans"  
Trivia Question**

Monsoon rains are heavy rains that occur when wind blows over the Indian Ocean.

**"The World -- Its Continents and Oceans"  
Lexicon**

1. Antarctic 2. Asia 3. Great 4. Europe 5. plateaus 6. Oceania 7. icebergs 8. land  
9. northern 10. kangaroo 11. Black 12. Indian 13. Volga 14. Tropics 15. Dead 16. Africa  
17. Australia 18. South America

**"Physical Regions of Canada"  
Comprehension Exercise**

1. E 2. A 3. B 4. C 5. F 6. D 7. A 8. B 9. C 10. D 11. F 12. E

**“Physical Regions of Canada”  
Capitalization**

1. The, Cordillera, British Columbia, Alberta, Yukon, Northwest Territories
2. On, Tuesday, I, New Brunswick
3. The, Interior Plains, Canadian Shield, Cordillera
4. In, May, I, Niagara Falls
5. There, French, Canada
6. Newfoundland, Appalachian Highlands
7. My, Sally, Ontario, Spanish
8. The, Atlantic
9. My, Bob, Quebec
10. Saskatchewan, Interior Plains

**“Physical Regions of Canada”  
Trivia Question**

1880's

**“Physical Regions of Canada”  
Supplementary Exercise**

Sources for the answers are the following Internet site accessed 4/1/03:

1. 113 square kilometers
2. Annual precipitation is 1,219 mm
3. 49 degrees latitude and 123 degrees longitude.
4. 3 degrees Celsius

**“To the top of the Mountain”  
Comprehension Questions**

1. They are folded mountains, dome mountains, block mountains, and volcanic mountains. Folded mountains are formed when pressure causes the rock layers to fold or wrinkle. Dome mountains are also created from pressure on the Earth's crust and they are shaped like a blister. Block mountains are created by breaks in the Earth's crust. Volcanic mountains are created by piles of cooled ashes, lava, and cinders that came through the surface of the Earth.
2. Folded mountain.
3. The Coast Mountains
4. Appalachian Mountains
5. The Cordillera has three mountain ranges: the Rocky Mountains, the Interior Plateau, and Mountains ranges, and the Coast Mountains.

**“To the top of the Mountain”  
Trivia Question**

The Coast Mountains in BC

**“To the top of the Mountain”  
Reading Between the Lines**

Mount Fuji: Japan, Mount Cook: New Zealand, Adirondack Mountains: New York, Mount Washington: New Hampshire, Mount St. Helens: Washington, Andes Mountains: South America, Pyrenees: Border of France and Spain, The Alps: South Central Europe, Mount Olympus: Greece, Ural Mountains: Russia, Himalayas: Asia, Mont Blanc: Border of France and Italy.

**“To the top of the Mountain”  
Spelling**

1. volcano 2. minute 3. mountain 4. create 5. interesting 6. according 7. erosion  
8. Newfoundland 9. official 10. formed 11. western 12. interior 13. frozen 14. highest  
15. material

**“Beautiful Valleys”  
Comprehension Questions**

1. A valley is an area of low land that has higher land on both sides of it. V-shaped and U-shaped valleys.
2. Valleys formed in the mountains are narrow and deep. Valleys formed in low areas have a gradual slope.
3. Ribbon lakes are long and narrow lakes found in valleys.
4. Valley floors along riverbanks.
5. Valley walls or valley slopes.
6. U-shaped valleys are formed by glaciers as they pushed their ways through mountains and some of the V-shaped valleys.

**“Beautiful Valleys”  
Trivia Question**

Apples

**“Beautiful Valleys”  
B,P,G, or D**

- |                      |                     |                    |                      |
|----------------------|---------------------|--------------------|----------------------|
| 1. <u>pl</u> ace     | 2. <u>b</u> ecause  | 3. <u>bo</u> th    | 4. <u>b</u> etween   |
| 5. <u>bo</u> ttom    | 6. <u>lan</u> d     | 7. <u>dr</u> y     | 8. <u>by</u>         |
| 9. <u>lon</u> g      | 10. <u>slop</u> ing | 11. <u>be</u> ing  | 12. <u>glac</u> ier  |
| 13. <u>scrap</u> ing | 14. <u>goo</u> d    | 15. <u>pr</u> oud  | 16. <u>bea</u> tiful |
| 17. <u>de</u> bris   | 18. <u>goo</u> d    | 19. <u>call</u> ed | 20. <u>pu</u> sh     |
-

## Long Vowel Sounds

Possible Answers:

1. usually
2. place
3. because
4. sides
5. slope

## "Canada's Rocks" Comprehension Questions

1. Igneous, sedimentary, and metamorphic.
2. They are formed from molten rock that has become solid.
3. Lava is molten rock that is on top of the Earth's surface. Magma is molten rock that is still beneath the Earth's surface.
4. They are formed from one or more different types of rocks that have been cemented, weathered, or pressed together. Some examples are sandstone, shale, and limestone.
5. Slate, phyllite, schist, and gneiss.
6. 415 million years old.

## "Canada's Rocks" Trivia Question

Sedimentary rocks

## "Canada's Rocks" Suffixes

1. bigger
2. beautifully
3. smallest
4. coming
5. originally
6. visiting
7. seriousness
8. heated
9. rocky
10. scenic
11. compressor
12. location
13. locally
14. usage
15. useful
16. tenth
17. useless
18. placement
19. dangerous
20. togetherness

## "Glaciers -- Large Bodies of Ice" Comprehension Questions

1. A glacier is a large body of ice that moves slowly down a slope or valley or spreads outward on a land surface.
2. About 20,000 years ago.
3. Ice sheets, ice shelves, ice caps.
4. One kilometer thick.
5. Some researchers believe the glaciers came from close by, in the upland areas of the north. Other researchers believe the glaciers came from Quebec and crossed the Bay of Fundy to get to Nova Scotia.
6. The water formed lakes, rivers, and raised the ocean level.

**"Glaciers -- Large Bodies of Ice"**  
**Reading Between the Lines**

1. Most are in Antarctica, Greenland, but they are found in almost all continents of the world.

**"Glaciers -- Large Bodies of Ice"**  
**Trivia Question**

200,000 square kilometers

**"Glaciers -- Large Bodies of Ice"**  
**Common Bonds**

1. heavy   2. many   3. now   4. Nova Scotia   5. less   6. province   7. glacier   8. frozen   9. Bay of Fundy  
10. people   11. tonne   12. water   13. land   14. direction

**"Let's Anchor in the Harbour!"**  
**Comprehension Questions**

1. A harbour is an indented area along the coastline that is either natural or man made.
2. Shelter boats/transfer goods/dock ferries
3. The harbours gave boats shelter and provided an area for transferring goods.
4. Man-made harbours were usually built where the coast was already indented. Breakwaters were then built. A breakwater is a structure built to break the force of the waves. Usually the structure is made from large boulders.
5. Halifax Harbour.

**"Let's Anchor in the Harbour!"**  
**Trivia Question**

Halifax Harbour

**"Let's Anchor in the Harbour!"**  
**Matching**

1. common   2. strong   3. transferring   4. artificial   5. export   6. breakwater   7. boulders   8. year  
9. freeze   10. tonne   11. anchor   12. settlers   13. coast   14. attracts   15. completely   16. ship/ferry

**"Nova Scotia's Famous Canal"**  
**Comprehension Questions**

1. It would benefit the military and the economy. It would also make land in the western part of Canada more accessible to the settlers and Halifax merchants.
2. 1826.
3. A marine inclined plane is a device on wheels that lifts boats from one level to a different level without using locks.
4. 1856.

5. Railways became the cheaper and faster way of transporting goods.
6. It is a historic site.

**"Nova Scotia's Famous Canal"  
Trivia Question**

It means "abounding in ground nuts" or "place where the red potato grows

**." "Nova Scotia's Famous Canal"  
Interrogative Statements**

Possible answers:

1. What formed the Shubenacadie Canal out of bedrock?
2. Who gained control of Halifax in 1749?
3. When was the Shubenacadie Canal Company formed?
4. What is an inclined plane?
5. What was the cheaper and faster way to transport goods?
6. Who preserves the Shubenacadie Canal?
7. Who was hired to survey and design the canal?
8. Why was the canal built?
9. Where were drawbridges used?
10. When was the Shubenacadie Canal finally in operation?

**"Nova Scotia"  
Comprehension Questions**

1. New Scotland.
2. 550 km long and 130 km wide. 55,487 square kilometers.
3. Halifax Harbour
4. In the Bay of Fundy.
5. Cape Breton Island
6. Forests, minerals, fish, and wildlife.
7. Liverpool, Pictou, and Port Hawkesbury.

**"Nova Scotia"  
Trivia Question**

Evangeline Trail, Glooscap Trail, Sunrise Trail, Celidh Trail, Cabot Trail, Bras d'Or Lakes Drive, Fleur-de-Lis Trail, Marconi Trail, Marine Drive, Halifax Metro Area, Lighthouse Route.

**"Nova Scotia"**  
**Counties of Nova Scotia**

1. Yarmouth 2. Digby 3. Annapolis 4. Kings 5. Hants 6. Cumberland 7. Colchester 8. Pictou  
9. Antigonish 10. Inverness 11. Victoria 12. Cape Breton 13. Richmond 14. Guysborough  
15. Halifax 16. Lunenburg 17. Queens 18. Shelburne

**"The Gambia in West Africa"**  
**Comprehension Questions**

1. That is exactly what it looks like.
2. A double lane bridge.
3. You can navigate or sail in it.
4. The surface area of Canada is 9,984,670 square kilometers. Check Statistic Canada's website to obtain current population figures.

**"Life in Regina, Saskatchewan"**  
**Comprehension Questions**

1. Flat as a pancake.
2. The person stated that he had heard a weather forecast and it said it would be minus 6 with wind chill of -15 and that the visibility was 26 miles.
3. Saskatchewan has a lot of farmland and the mass amounts of forests are in the northern region since it is too cold to farm there.
4. If you dig up the first layer of topsoil there is sand underneath left over from the depositing of rocks by the glaciers, which eventually got eroded into sand. That is why they have such great soil and good drainage to grow crops.
5. They get their drinking water from a lake located about 45 minutes west that is filtered through a water plant.
6. About 65 feet across and a few feet deep.
7. The summer heat is brutal, and the rain comes down hard. The winter days are cold and short.
8. Because of the low grain prices.

**"Life in Regina, Saskatchewan"**  
**Substitutions**

Possible answers:

1. said 2. a bit 3. wonderful 4. huge 5. child 6. sacks 7. believe 8. little 9. horrid  
10. farm 11. because of 1 2. big

**"Life in the Aspen Parklands, Saskatchewan"**  
**Comprehension Questions**

1. Lloydminster is located between Saskatoon, Saskatchewan and Edmonton, Alberta. The location provides great benefits in transportation and warehousing. Lloydminster is known as the border city. It borders both Saskatchewan and Alberta, therefore making it unique.

2. The climate is sub-humid, and fairly cold. There is enough precipitation to support tree growth. It is warmer and drier than regions to the North.
3. Wetlands.
4. A winter with very little snowfall is not good because of the lack of moisture.
5. Stubble is straw that remains after harvesting.
6. There are six soil zones in Saskatchewan - brown, dark brown, black, gray, dark gray and forest soils.

**"All About Soil"  
Comprehension Questions**

1. Organic and inorganic material.
2. Humus is organic material. Yes. Humus is essential for good plant growth. It is rich in nutrients, helps the soil retain water and air, and improves drainage.
3. Topsoil.
4. 16
5. Sandy soil. Sandy soil is gritty, drains easily, and is easily plowed. Clay soil.
6. Loam is well-balanced, good textured soil. It is called good soil since it contains a good balance of sand, silt, and clay. It is also rich in humus.
7. The pH scale rates the level of acid or lye in the soil. 6.5.

**"All About Soil"  
Trivia Question**

1. Tundra soil is the rich topsoil found in very cold climates where it thaws only for a short period of time each year. Only small plants grow in this soil. Trees cannot grow in this soil since the subsoil is permanently frozen.

**All About Soil"  
True or False**

1. True 2. False 3. True 4. False 5. True 6. True 7. True  
8. False 9. True 10. True 11. False 12. True 13. False 14. False

**"PEI Soil"  
Comprehension Questions**

1. The long, cold winters, with deep frost.
2. Sedimentary bed rock and soft, red sandstone.
3. Deposited by water.
4. It is because of the high rust content in the soil.
5. Mi'Kmaq traditions tells of how Glooscap, a Mi'Kmaq god, created the red soil. Mi'Kmaqs say that Glooscap first painted and created all of the beautiful wonders of the world. Glooscap mixed beautiful colours with his paintbrush. Then Glooscap painted the Abegweit soils, known today as Prince Edward Island.

**"P.E.I. Soil"  
Trivia Question**

Approximately 112,000 acres

**"P.E.I. Soil"  
Plurals**

1. people
2. farmers
3. potatoes
4. winters
5. contents
6. industries
7. climates
8. materials
9. Europeans
10. stories

**"P.E.I. Soil"  
Long e Sound**

because, people, before, mean, create

**"Nova Scotia's Provincial Berry"  
Comprehension Questions**

1. The Provincial Berry of Nova Scotia.
2. They grow on a low bush and best on abandoned farmland or in a clearing in the forest. They grow well in acid soils.
3. They spread by underground runners.
4. They are hand harvested and machine harvested. They are shipped all over the world -- twenty or more countries.

**"Nova Scotia's Provincial Berry"  
Trivia Question**

Maine

**"Nova Scotia's Provincial Berry"  
Synonyms**

1. remember
2. stories
3. lucky
4. fall
5. stem
6. ripen
7. harvest
8. largest
9. appear
10. ways

**"Nova Scotia's Provincial Berry"  
Antonyms**

1. long
2. sweet
3. low
4. wild
5. remember
6. young
7. early
8. most
9. largest
10. appear

**"Nova Scotia's Provincial Berry"  
Math**

1.  $\frac{3}{4}$  cup milk  $\times 2 = 1 \frac{1}{2}$  cup milk. 1 cup is 237 milliliters  
so  $1.5 \times 237 = 355.5$  ml
2. 1 tablespoon = 3 teaspoons so 3 times more shortening than sugar.
3.  $1 \frac{1}{2} \times \frac{1}{2} = \frac{3}{4}$  cup flour
4. 1 cup is 8 ounce so  $\frac{3}{4}$  cup or  $0.75 \times 8 = 6$  ounces

5.  $3/4 \times 237 = 177.75$  ml
6.  $3 \times 1/2$  cup water =  $1 1/2$  cup water. 1 cup = 8 ounces  
so  $1 1/2$  cup = 12 ounces.

**"Nova Scotia's Tasty Treat"  
Comprehension Questions**

1. Habitat means the natural residence of a plant or animal.
2. Wild cranberries grow in swamps, open bogs, and wet areas around the shoreline throughout Nova Scotia.
3. Late September or early October.
4. Pemmican.
5. Cancer

**"Nova Scotia's Tasty Treat"  
Trivia Question**

White cranberries are red cranberries that are harvested a few weeks earlier.

**"Nova Scotia's Tasty Treat"  
Verbs**

1. turn   2. grow   3. is   4. like   5. mix   6. are   7. dry   8. is   9. see  
10. help   11. plants   12. cultivates

**"Great Grape Growing in Canada?"  
Comprehension Questions**

1. British Columbia, Ontario, Quebec, and Nova Scotia.
2. Sun and rain.
3. Eating, baking, and freezing.
4. Frozen white grapes are harvested and pressed while still frozen. The concentrated grape nectar is then left to ferment and turn into wine.
5. The sugar turns to alcohol.

**"Great Grape Growing in Canada?"  
Consonant Blends**

grape	<u>th</u> ese	mon <u>th</u>	<u>cr</u> eat
<u>Br</u> itish	<u>fr</u> uit	<u>wh</u> en	<u>wh</u> ite
grou <u>n</u>	<u>cr</u> op	<u>fr</u> eeze	<u>sm</u> all
<u>sh</u> eltered	<u>sw</u> eed	<u>th</u> ing	<u>th</u> an
<u>fi</u> sh	<u>cl</u> imate	<u>pr</u> ess	ni <u>tr</u> ogen

**Great Grape Growing in Canada?"  
Vowels**

ri <u>p</u> en	fru <u>i</u> t	se <u>p</u> arate	pop <u>u</u> lar
g <u>o</u> w	are <u>a</u> s	alco <u>o</u> hol	cryst <u>a</u> l
b <u>e</u> tter/b <u>i</u> tter/b <u>u</u> tter	mai <u>n</u>	purpo <u>s</u> e	uni <u>q</u> ue
vari <u>e</u> ty	s <u>u</u> ccess	indu <u>s</u> try	sug <u>a</u> r
concentr <u>a</u> te	Dec <u>e</u> mber	dehydr <u>a</u> ted	tour <u>i</u> sm

**"Nova Scotia's Provincial Flower"  
Comprehension Questions**

1. 1901
2. April and May
3. The plant has oval, shiny, green leaves and delicate, trumpet-shaped, and pink clusters of flowers.
4. Shallow underground stems. It is a slow spreader since the seeds do not form every year.
5. Cool, acid soil that stays moist but drains well.

**"Nova Scotia's Provincial Flower"  
Trivia Question**

Massachusetts in 1918.

**"Nova Scotia's Provincial Flower"  
Sequencing**

After Grandpa's stroke, he couldn't pick Grandma's mayflowers.	4
Grandma died four months before Grandpa.	8
The author of the story got married and moved to another province.	6
For my Grandma's first birthday after she got married, Grandpa picked her a bouquet of mayflowers.	2
The author's father picked mayflowers for Grandma.	7
The author's grandparents got married in 1916.	1
Grandpa suffered a severe stroke.	3
The author of the story decided to pick the mayflowers for Grandma.	5

**"Nova Scotia's Provincial Flower"  
Long "o" sound**

cover	<u>a</u> lso	do	<u>N</u> ova Scotia
<u>o</u> val	<u>s</u> low	<u>g</u> row	<u>n</u> o
found	everybody	bloom	wonder
one	<u>o</u> ak	<u>c</u> ozy	<u>s</u> troke
<u>o</u> ld	<u>g</u> o	<u>s</u> o	adopt

**"Ragweed - Nova Scotia's Harmful Plant"  
Comprehension Questions**

1. Even though ragweed is not fussy about soil types, it prefers soil with a level between 6 and 7 on the PH scale.
2. This means that its life cycle lasts only one season.
3. 40 years. 62,000 seeds per year. The seeds spread around the province with the help of birds, water, and even humans.
4. It would poison most plants.
5. Hay fever.
6. Causes severe nausea.
7. It grows vigorously among the crops, robbing them of essential nutrients, water, sunshine, and growing space, therefore reducing crops. Pictou, Cumberland, Hants, Kings, and Annapolis counties are particularly bothered by this ragweed.

**"Ragweed - Nova Scotia's Harmful Plant"  
Trivia Question**

Herbicides can be used to control ragweed. In June and July, applications of herbicides can be used. A weed inspector can give information and rates of applications.

**"Ragweed - Nova Scotia's Harmful Plant"  
Math**

- 1.A)  $62,000 \times 9 = 558,000$
- 1.B)  $558,000 \div 3,000 = 186$
- 2.A)  $400 \div 5 = 80$  kilometers per hour.
- 2.B) Using answer from 2.A),  $80 \times 12 = 960$
3.  $5 \div 18 = 0.2777777777$  or 0.28 or 28%
4.  $50 \div 2.54 = 19.685039$  or rounded off to the nearest inch is 20 inches.

**"Organic Carrots in British Columbia"  
Comprehension Questions**

1. Fountainview Farms is located between the towns of Lytton and Lillooet in the Fraser Valley, on the edge of the Okanagan Valley. Have the learner find the Okanagan region or Fraser Valley on a map.
2. Plastic gutters built around the rim of the mountain allow water to move down towards the farms. The water goes through sprinklers on the farms at the base of the mountains.
3. Crops like barley, rye, and soya beans are grown then tilled back into the soil to build the soil back up. This is called green manure.
4. Animal manure is not used because of the hormones that the animals ingest.

**"The Nova Scotia Climate"  
Comprehension Questions**

1. They can be cold, harsh, and windy, but they are relatively mild, especially in the southern region.
2. The cold waters of the Atlantic Ocean and the Bay of Fundy.
3. 120-130
4. The Cape Breton Highlands. 1600 mm of rain or snow.
5. It occurs when warm air passes over the cold water. Yarmouth, Canso, and Sydney.
6. 122 foggy days.

**"The Nova Scotia Climate"  
Trivia Question**

1. The Great Nova Scotia Cyclone was a disastrous hurricane that struck Cape Breton Island on August 25, 1873. This unusual and powerful tropical storm raged and destroyed hundreds of buildings, vessels, and lives as well as bridges, dykes, and wharves. Property losses were in the millions. Storm warnings had not gotten through because the telegraph service between Toronto and Halifax had been cut off. After this terrifying storm, the Canadian storm warning system was improved.

**"The Nova Scotia Climate"  
-ly ending**

certainly, daily, monthly, coldly, warmly, pleasantly, harshly, usually, considerably, mostly, severely, annually, relatively, moderately, quickly, finally

1. mostly   2. certainly   3. daily   4. harshly   5. quickly   6. yearly   7. usually   8. severely

**"Our Weather"  
Comprehension Questions**

1. Gabriel Daniel Fahrenheit in 1714. Boiling point is 212 degree F and freezing point at 32 degrees F.
2. Anders Celsius in 1742. Boiling point at 100 degrees C and freezing point at 0 degrees C.
3. Normal temperature is the average temperature for the past thirty years for that time of year.
4. High is the highest estimated temperature of the day and low is the lowest estimated temperature of the day.
5. Probability of precipitation.
6. The humidex is a scale used to measure the amount of humidity in the air on warm, summer days.

**"Our Weather"  
Reading Between the Lines**

- 1.a) 9 degrees C
- b) 4 degrees C.
- c) Monday.

**"Our Weather"  
Trivia Question**

El Nino is caused by a change in the wind patterns over the equatorial Pacific Ocean. This changes the way the Pacific distributes heat to the other areas on earth. Because of this, the weather and climate is affected. El Nino is the name given to a global change in the world's weather that occurs about every four years. Areas that usually have storms and drought have this but it is more severe than usual, mostly in areas in the tropics.

**"Our Weather"  
Conversions**

1. 0 C   2. 8 C   3. 25 C   4. 18 C   5. 10 C   6. 30 C   7. 27 C

-----

1. 39.2 F   2. 66.2 F   3. 69.8 F   4. 84.2 F   5. 53.6 F   6. 35.6 F  
7. 75.2 F

**"Clues in the Clouds"  
Comprehension Questions**

1. Their beginnings are on the earth's surface.
2. Core or center.
3. Cumulus, stratus, and cirrus.
4. Cumulus.
5. Cirrus clouds curl up into high, wispy clouds.
6. It indicates a high level cloud.

**"Clues in the Clouds"  
Trivia Question**

1. Fog is formed in the same way and is made up of exactly the same "stuff" as clouds, therefore, fog is actually a cloud. It is a type of stratus cloud, but we actually do not refer to fog as a cloud because it is so low that it actually touches the ground.

**"All About Wind"  
Comprehension Questions**

1. A prevailing wind is the wind that usually blows across a particular area or region.
- 2.a) A "front" is the coming together of two different air masses.
- 2.b) A "cold front" happens when a cold air mass moves into an area occupied by warmer air. Cold fronts bring lower or cooler temperatures and can create thunderstorms.
- 2.c) A "warm front" happens when a warm air mass moves into an area with colder air. Warm fronts usually bring weather that consists of large cloud areas and rain.
3. A *Nor'Easter* is a north easterly wind that blows along the eastern sea board.
4. The wind chill factor is how we measure how fast the human body loses heat when the wind and air cools.
5. This improved system measures the wind speed at the level of the human face while the old system measured 33 feet in the air.

**"All About Wind"  
Trivia Question**

1. A gust of wind is a sudden, quick increase in wind speed that lasts usually no more than 20 seconds. A squall is a sudden, quick increase in wind speed that lasts a few minutes and then decreases quickly.
2. Ground Hog Day Storm

**"All About Wind"  
Antonyms**

- |                   |                   |                 |               |
|-------------------|-------------------|-----------------|---------------|
| 1. different/same | 2. together/apart | 3. cold/warm    | 4. good/bad   |
| 5. large/small    | 6. loses/gains    | 7. higher/lower | 8. slow/fast  |
| 9. old/new        | 10. best/worst    | 11. many/few    | 12. less/more |



1. thunderstorm, sometimes
2. usually
3. unnoticeable
4. warmer, weather, winds, world

**"The Canadian Chinook"  
Comprehension Questions**

1. A warm, dry wind.
2. Western Canada. Southern Alberta.
3. A quick change in wind direction and speed.
4. Any time of the year.
5. Moisture from the soil can be lost from the decrease in humidity. Strong winds can blow soil away. Some trees and other vegetation cannot tolerate the fast changes to the weather, causing them to die. For some plants and animals, snow is a source of protection in the winter months, quickly warming temperatures can melt the snow and the protection for these plants and animals is lost. In the summer, a chinook can damage small plants with the high winds and loss of moisture to the soil.
6. When the snow melts, the cattle and livestock can graze in the fields./The spring-like temperatures make some people feel better.
7. Some people get headaches, migraines, nervous disorder, shaking and fidgeting.

**"The Canadian Chinook"  
Trivia Question**

Chinook was a word given by the Indians meaning "snow eater."

**"The Canadian Chinook"  
Spelling**

1. The temperiture rises as the wind moves down the mountain. (temperature, mountain)
2. Many chinooks occur in Allberta and parts of Saskatchewan. (Alberta, Saskatchewan)
3. Chinooks can quikly melt the snow. (quickly)
4. The chinook moves down the shelltered side of the mountain.(sheltered)

5. The wetther drops in humedity.(weather, humidity)
6. A chinook usually starts with a chenge in wind direcshion and speede.(chinook, change, direction, speed)
7. Areas that receiue chinook winds can average beatween 20 and 30 days. (receive, average, between)
8. The lost of moistur to the soil can hurt some plantes. (moisture, plants)
9. Snow provides protection to vegetatation during the winture. (protection, vegetation, winter)
10. Some peeple get headakes during a chinook. (people, headaches)
11. The wind can gust up to 80 killometers per hour. (kilometers)
12. The snow melts or evaporats. (evaporates)
13. Chinooks hapen in the western provinces of Canada. (happen, provinces)
14. Chinooks can occur all year round. (occur)
15. Agreculture is also efected by chinooks. (Agriculture, affected)

### "What is Acid Rain?" Comprehension Questions

1. There are two types of acid deposition. Wet deposition and dry deposition. Wet deposition is acidic rain, snow, and fog. Dry depositions refer to acidic gases and particles in the air.
2. The two main causes for acid rain are the chemicals sulfur dioxide and nitrogen oxide. These chemicals pollute the air. These two chemicals fall from the sky as wet or dry deposition.
3. Acid rain is measured by a pH scale.
4. 80%
5. Acid rain can affect the trees' nutrients, causing the tree to starve.
6. In Nova Scotia rivers there has been a decline in salmon catches, mostly because of acid depositions. Large amounts of fish have died in 14,000 lakes across Canada because of the acid depositions.

### "What is Acid Rain?" Trivia Question

There are lots of ways, here are a few:

- \* Turn off lights when you're not in a room
- \* car pool with a friend
- \* insulate your house properly
- \* use cold water when washing clothes

### "What is Acid Rain?" Paragraphs

- |  |  |
|--|--|
| 1. See <a href="#">Acid Rain</a> , paragraph 1 | 2. See <a href="#">Acid Rain</a> , paragraph 3 |
| 3. See <a href="#">Acid Rain</a> , paragraph 5 | 4. See <a href="#">Acid Rain</a> , paragraph 8 |
| 5. See <a href="#">Acid Rain</a> , paragraph 2 | 6. See <a href="#">Acid Rain</a> , paragraph 4 |

- |  |   |
|--|---|
| 7. See <a href="#">Acid Rain</a> , paragraph 9 | 8. See <a href="#">Acid Rain</a> , paragraph 2  |
| 9. See <a href="#">Acid Rain</a> , paragraph 6 | 10. See <a href="#">Acid Rain</a> , paragraph 7 |

**"Some of the World's Natural Disasters"  
Comprehension Exercise**

- |             |               |              |              |
|-------------|---------------|--------------|--------------|
| 1. volcano  | 2. tornado    | 3. landslide | 4. avalanche |
| 5. mudslide | 6. hurricane  | 7. tornado   | 8. mudslide  |
| 9. tornado  | 10. hurricane |              |              |

**"Some of the World's Natural Disasters"  
Trivia Question**

Tornado

**"Some of the World's Natural Disasters"  
-er and -est endings**

- |                      |                      |
|----------------------|----------------------|
| 1. slower, slowest   | 2. heavier, heaviest |
| 3. faster, fastest   | 4. smaller, smallest |
| 5. steeper, steepest | 6. larger, largest   |
| 7. lighter, lightest | 8. wetter, wettest   |
| 9. louder, loudest   | 10. lower, lowest    |
| 11. colder, coldest  | 12. longer, longest  |
| 13. milder, mildest  | 14. calmer, calmest  |

**"Canadian Earthquakes"  
Comprehension Questions**

1. An earthquake happens when two tectonic plates try to move past one another but cannot because of bends in the rocks.
2. Tectonic plates are big pieces of interlocking rock that form a layer beneath the earth's surface.
3. Scientists use a method called the Richter scale to measure the size of an earthquake. The Richter scale was invented in 1935. It bases earthquakes on a scale from 0 to 9.
4. Seismometers.
5. A tsunami is a tidal wave caused by an earthquake or a volcano. The tsunami caused \$400,000 in damage and killed 29 people in Newfoundland.
6. Offshore.

**"Canadian Earthquakes"  
Trivia Question**

Even with today's knowledge, it still is not possible to predict an earthquake. We cannot predict ahead of time the exact time, date and location of an earthquake, but there is a lot of research being done to try to predict when a quake will occur.

**"Interview with Emre Uzua"  
Questions**

1. Non-fiction.
2. Gölcük, a small city in northwestern Turkey.
3. a) Five floor apartment building. The building was made of cement blocks and was located high on a hill. It had a beautiful view of the Bay of Izmit.  
b) I could see to my side that the apartment buildings looked lower. The first floors of the buildings had crumbled and the top floors fell on top of them. Other apartments were laying on each other.  
c) Now, three and a half years later, they are building a new city outside of the old city. The buildings are not as high and are built on hills.
4. Summaries will vary. Instructor can score as they wish.

**"What is Erosion?"  
Comprehension Questions**

1. Erosion is the process which causes the land to wear away, break up, and gradually change.
2. Wind, rain, glaciers, and the action of rives and waves.
3. Erosion can start as simply as a single raindrop moving a few grains of soil on a sloping land surface. Soon a pouring rainstorm loosens the topsoil. Rainwater running downhill cuts channels into the soil and carries it downhill. The channels deepen with the heavier rains, and more, and more soil is washed away and transported elsewhere. This kind of erosion is called sheet erosion.
4. By cutting down too many trees and loosening and over-cultivating the soil.

**"What is Erosion?"  
Trivia Question**

Airborne material can be carried hundreds of kilometers away by strong winds. For example, the harmattan, a northwest trade wind of West Africa, carries airborne soils across the Atlantic Ocean.

**"What is Erosion?"  
Compound Words**

everyone/everything/everywhere, someone/ something/ somewhere, waterfall, rainfall/raincoat, topsoil/topcoat, nowhere/nothing, chopstick, notebook, flowerpot, overlook

Compound words in the story: rainstorm, rainwater, raindrop, downhill, elsewhere

**"The 1998 Ice Storm"  
Comprehension Questions**

1. Summertown Station in Ontario.
2. January of 1998 and it affected eastern Ontario, Quebec, western New Brunswick, and some of the northern states of the USA.
3. Two and a half weeks.
4. \$585 million.
5. 700,000 people.

**"The 1998 Ice Storm"  
Trivia Question**

1,000 power transmission towers and 30,000 wooden utility poles.

**"The 1998 Ice Storm"  
Consonant Blends**

- |   |  |
|---|--|
| 1. dorm, form, worm                         | 10. bill, fill, hill, kill, mill, pill, sill, will |
| 2. mob, mom, mow, mop                       | 11. cob, con, cot                                  |
| 3. cart, dart, part, tart                   | 12. rant, pant                                     |
| 4. cool, fool, pool, tool                   | 13. face, lace, mace, pace, race                   |
| 5. dose, hose, lose, pose, rose             | 14. lob, lop, low                                  |
| 6. den, hen, men, pen, ten                  | 15. ear, eat                                       |
| 7. to, no, do                               | 16. bee, fee, see                                  |
| 8. date, fate, gate, hate, late, mate, rate | 17. cough, rough, tough                            |
| 9. bat, cat, fat, hat, mat, pat, sat, vat   | 18. sing, wing                                     |

**"A Short History of Maps"  
Comprehension Questions**

1. Stone tablets.
2. The sun, stars, and moon.
3. A legend lets you know what the symbols represent.
4. A scale tells you the distance proportions.
5. They are divided by grid lines so you can locate a place on the map by getting its location in the index.

**"A Short History of Maps"  
Map Reading Exercise**

- |        |        |        |         |         |        |
|--------|--------|--------|---------|---------|--------|
| 1. K3  | 2. P2  | 3. K8  | 4. G10  | 5. G8   | 6. F10 |
| 7. D16 | 8. N1  | 9. B16 | 10. F11 | 11. K5  | 12. L6 |
| 13. J6 | 14. F7 | 15. O2 | 16. H12 | 17. E17 | 18. H5 |
| 19. J5 | 20. F6 |        |         |         |        |

-----

- |          |          |          |           |          |          |
|----------|----------|----------|-----------|----------|----------|
| 1. 25 km | 2. 20 km | 3. 40 km | 4. 65 km  | 5. 50 km | 6. 50 km |
| 7. 40 km | 8. 50 km | 9. 50 km | 10. 15 km |          |          |

-----

- |           |           |           |            |           |           |
|-----------|-----------|-----------|------------|-----------|-----------|
| 1. 223 km | 2. 273 km | 3. 727 km | 4. 141 km  | 5. 205 km | 6. 299 km |
| 7. 218 km | 8. 218 km | 9. 91 km  | 10. 403 km |           |           |

-----  
Here are a few of the possible answers:

1. Kejimikujik National Park, Canso area, Louisbourg Nat. Historic Site, etc.
2. Martock, Ben Eoin
3. Clyde River, Guysborough, New Glasgow, etc.
4. Shelburne, Lunenburg, Annapolis Royal, etc.
5. Sable River, Hibernia, Smiths Cove
6. Halifax, St. Peters Bay
7. Sydney, Pictou, Bridgewater, etc.
8. Bras d'Or Lake, Mahone Bay, Brier Island

### **"A Short History of Maps" Supplementary Exercise**

There are numerous answers since learner may respond with countries, continents, provinces, or states.

### **"How to Use a Compass" Comprehension Questions**

1. So the compass needle does not touch the top of the glass or bottom of the compass, and it can turn freely.
2. Magnetic North.
3. 0-360 degrees

### **"How to Use a Compass" Trivia Question**

The orienting arrow is the north/south pointing arrow painted or engraved into the housing. It is used to center the magnetic needle when making a bearing.

### **"Lines of Longitude and Latitude" Comprehension Questions**

1. The equator is an imaginary horizontal line that runs across the surface of the earth.
2. Vertically. Greenwich, England.
3. Lines of latitude are horizontal lines that circle the world.
4. Line of longitude are vertical lines that circle the world.
5. Degrees. And each degree is divided into minutes and seconds.
6. These lines are used to located place on a map.
7. The "tropics." Areas close to the equator are very hot since the sun shines directly overhead.

### **"Lines of Longitude and Latitude" Trivia Question**

1. Tropic of Cancer – June 21. Tropic of Capricorn -- December 21.

**"Lines of Longitude and Latitude"  
Rhyming**

fun: run/sun	mop: top	brother: other	finer: shines/lines
lead: overhead	hate: locate	topic: tropic	song: long
free: degree	dose: close	well: tell	hero: zero
beast: east	pan: can		

**"Lines of Longitude and Latitude"  
Hard C**

Hard c: locate, can, close, country, vertical, tropic, across, capricorn, second

**"Earth and Pollution"  
Comprehension Questions**

1. Carbon Dioxide is a harmful, odorless gas. Carbon Dioxide is the more serious polluter as a greenhouse gas.
2. Ozone.
3. It is produced by fuels burned by power plants and motor vehicles.
4. The health problems range from breathing problems to making it difficult for blood to carry oxygen to the body's brain, heart and other tissues. It can cause serious damage to the unborn and newborn and even death to many.
5. Litter/ garbage that is not disposed of properly/ pesticides and herbicides/industrial activities.
6. The pulp and paper industry.
7. Dredging is the removal of built-up mud on a harbour's ocean floor. This is done to make sure ships can sail in and out of the harbor without hitting the bottom build up of mud. Dredging can disturb the ecosystem and can kill aquatic life.

**"Earth and Pollution"  
Trivia Question**

The average Canadian pulp mill releases 50,000 to 150,000 cubic meters of wastewater per day. This is the same as filling 53 to 159 Olympic-size swimming pools per day.

**"Earth and Pollution"  
Synonyms**

1. odorless
2. serious
3. largest
4. vehicles
5. waste
6. small
7. quickly
8. area
9. types
10. ocean

**"Earth and Pollution"  
Long Vowel Sounds**

agree, fuel, mine, time, brain, most, old, hole, slow, keep

**"How The World Became 'On Time'"  
Comprehension Questions**

1. Before the nineteenth century, people set their clocks according to the sun. Noon was when the sun was at its highest peak during the day. Each town would have its own clock, placed in the middle of town and citizens would set their clocks according to the official town clock.
2. Sir Sanford Fleming.
3. 1884
4. Five.
5. One hour.

**"How The World Became 'On Time'"  
Trivia Question**

Ahead.

**"How The World Became 'On Time'"  
Time Zone Conversions**

- |            |            |            |           |          |           |
|------------|------------|------------|-----------|----------|-----------|
| 1. 1 pm    | 2. 10 am   | 3. 12 noon | 4. 1 pm   | 5. 1 pm  | 6. 11 am  |
| 7. 12 noon | 8. 2:30 pm | 9. 11 am   | 10. 11 am | 11. 2 pm | 12. 10 am |

**"How The World Became 'On Time'"  
Extra Challenge**

Note: The answers to the following were calculated using the converter on the following website:  
<http://www.onlineconversion.com/timezone.htm>

- |          |          |          |           |           |           |
|----------|----------|----------|-----------|-----------|-----------|
| 1. 7 am  | 2. 9 pm  | 3. 3 pm  | 4. 2 pm   | 5. 2 am   | 6. 4 am   |
| 7. 10 pm | 8. 4 pm  | 9. 2 pm  | 10. 3 pm  | 11. 10 pm | 12. 8 am  |
| 13. 5 pm | 14. 3 pm | 15. 3 pm | 16. 10 pm | 17. 12 am | 18. 11 pm |

**"The Earth's Interior"  
Comprehension Questions**

1. For a great number of years, scientists have done a lot of research to find out what's inside this huge mass of material. They've learned a lot about the interior of the Earth by studying patterns of movements of earthquakes waves.
2. The crust. 8 kilometers
3. 5,000 degrees Celsius.
4. Solid metal.

**"The Earth's Interior"  
Trivia Question**

1. The diameter at the equator is 12,756 kilometers.
2. The Earth's mass is about 6,600, 000, 000, 000, 000, 000 or 6.6 sextillion tons.

**"The Earth's Interior"  
-ing Ending**

blasting, protecting, imagining, seeing, going, having, making, learning, melting, supporting, calling, believing

1. believing
2. blasting
3. learning
4. protecting
5. melting

**"The Earth's Interior"  
Long "i"**

Long "i" sound: right, inside, slice, life, high

**"How Coal is Formed"  
Comprehension Questions**

1. The Carboniferous Period.
2. Lepidodendrons are strange looking trees with scale-like bark.
3. Peat is a thick, brown, spongy layer of plant material.
4. Over time, the old forest grew, died, and fell down, one layer after another. They began to decay and new plants grew. These new plants died and fell down over the partly and fully decayed plants. Centuries passed. Layers upon layers built up over old roots, leaves, tree trunks, and other plant material. It built up faster than it could be decomposed by bacteria. The layers stayed waterlogged and had little oxygen. A thick, brown, spongy layer of plant material called peat formed. Many more centuries passed before the spongy peat became hard, black coal. A lot of pressure built up over the peat swamps. More and more pressure came from the upper layers pressing moisture out of the peat and making it harder. After more than tens of thousands of years, the great pressure and heat, changes in the climate, environment, and earth caused the rock-like material to change into shiny, black coal.
5. Cold/dark/dusty
6. It kept the coal dust down. It was called rock dusting.
7. Lignite coal is soft, brown coal. Bituminous coal is a soft, sooty, black coal. Anthracite coal is shiny, black coal.

**"How Coal is Formed"  
Trivia Question**

The Foord seam

### "How Coal is Formed" Adjectives

1. It's difficult to walk around this swampy, prehistoric forest among the strange trees, dense thickets, and large ferns.
2. They began to decay and new plants grew.
3. Layers upon layer built up over old roots.
4. A thick, brown, spongy layer of material called peat formed.
5. Centuries passed before the spongy peat became hard, black coal.
6. I can see that mining is hard work.
7. The retired miner tells us about the coal in Nova Scotia.
8. He blinds us with his little light.
9. It is a soft, sooty, black coal.
10. The coal gives good heat.
11. Anthracite is shiny, black coal.
12. It has a clean, low flame.

### "Fossils in Nova Scotia" Comprehension Questions

1. A fossil is the remains or an impression of an animal or plant that lived at another time or age. They are most often preserved in rock.
2. Parrsboro site.
3. Heritage Research Permit.
4. Lepidodendron/ Lepiclophlois/Sigillaria
5. 1851 by Sir John William Dawson and Sir Charles Lyell.
6. The "Special Places Protection Act."

### "Fossils in Nova Scotia" Trivia Question

Tundra soil is rich topsoil found in very cold climates where it thaws only for a short period of time each year. Only small plants grow in this soil. Because the subsoil is permanently frozen, trees cannot grow in tundra soil.

### "Fossils in Nova Scotia" Crossword

Across: 1. dinosaur 3. extinct 5. fossil 7. now 9. found 10. site 12. another 14. million  
15. imagine 18. jawbone 19. illegal 20. kilometer

Down: 1. discovery 2. stone 4. Canada 6. location 8. heritage 9. fern 11. mammals 13. region  
16. also 17. peat

**"A Maritime Tin Mine"**  
**Comprehension Questions**

1. An ore is a mineral that has metal in it.
2. Make tin cans/used in toothpaste.
3. Being the largest tin mine in North America.
4. 1978.
5. 18.8 million tonnes of ore.
6. Half
7. It shut down because of low tin prices and high production costs.

**"A Maritime Tin Mine"**  
**Trivia Question**

Malaysia, Thailand, and Bolivia.

**"A Maritime Tin Mine"**  
**Root Words**

1. west 2. mine 3. prosper 4. hope 5. large 6. believe 7. discover 8. secure 9. average  
10. approximate 11. take 12. open 13. know 14. work

**"Offshore Oil and Gas Industry"**  
**Comprehension Questions**

1. Natural gas is a gas that forms in the Earth's interior. It is used for fuel.
2. Methane.
3. In the sand zone or sand layer in the Earth's interior.
4. The location of the natural gas.
5. The "mud" is a drilling fluid that applies the same amount of pressure as the pressure in the gas zone.
6. The material it is drilling through.

**"Offshore Oil and Gas Industry"**  
**Reading Between the Lines**

1. 12 hours x 21 days = 252 hours

**"Looking Under the Ocean"**  
**Comprehension Questions**

1. Oceanographers are scientists who study the seas.
2. Near the surface of the water.
3. It moves because the huge plates of the Earth's crust are always on the move and the ocean floor slowly moves along with them.
4. 2.5 centimeters
5. The continental shelf is the underwater land close to the edge of the continents.

**"Looking Under the Ocean"  
Trivia Question**

30 meters (100 feet)

**"Looking Under the Ocean"  
Substitutions**

- |   |                                       |                    |
|---|---------------------------------------|--------------------|
| 1. bid/hid/lid/rid                              | 2. die/pie/tie                        | 3. tea/pea         |
| 4. bear/dear/fear/gear/hear/near/pear/tear/wear | 5. bind/kind/mind/rind/wind           |                    |
| 6. dive/five/give/hive                          | 7. bold/fold/gold/hold/mold/sold/told |                    |
| 8. dew/few                                      | 9. cut/gut/hut/nut/rut                | 10. keep/peep/seep |
| 11. cove/dove/love                              | 12. way/gay/hay/lay/may/say           |                    |
| 13. ban/fan/man/pan/ran                         | 14. bill/hill/sill/will/pill          |                    |

**"Ocean Currents - Atlantic Canada"  
Comprehension Questions**

1. An ocean current is a large, strong flow of ocean water created by a number of different forces.
2. Some forces that create ocean currents are water temperature, winds, and the rotation of the Earth.
3. The force from the Earth's rotation helps to create ocean currents.
4. Counterclockwise.
5. The Gulf Stream.

**"Ocean Currents - Atlantic Canada"  
Reading Between the Lines**

1. North Atlantic Current.

**"Ocean Currents - Atlantic Canada"  
Trivia Question**

The North Atlantic Ocean

**"Ocean Currents - Atlantic Canada"  
Hard C and Soft C**

Hard c: current, create, climate, factor, circulation, across, coast, clockwise, Atlantic, countries, atmospheric

**"Ocean Currents - Atlantic Canada"  
Verbs**

1. warms
2. causes
3. is
4. runs
5. create

**"Nova Scotia: Home of the  
World's Highest Tides"  
Comprehension Questions**

1. The gravitation pull happens when the moon circles the earth.
2. New moon or full moon.
3. 8 knots.
4. Erosion caused by the powerful tides.
5. A tidal bore happens when the incoming tide pushes its way upstream against the flow of a river's outgoing freshwater. It looks like a wave traveling against the natural flow of the river.

**"Nova Scotia: Home of the  
World's Highest Tides"  
Trivia Question**

16.27 meters or 53.38 feet

**"Nova Scotia: Home of the  
World's Highest Tides"  
Math Conversions**

1. 1 foot = 0.3048 meters so  $16 \div 0.3048 = 52.493438$  or 52.5 feet.
2. 1 hour = 60 minutes so 12 hours x 60 minutes = 720 minutes
3. 1 knot = 1.852 kilometer/hour so 8 knots x 1.852 km/hour = 14.816 kilometer/hour
4. 1 mile = 1.61 kilometer so  $322 \div 1.61 = 200$  miles.
5. 1 tonne = 1000 kilograms so 14, 000,000,000 tonnes x 1000 kilograms = 14, 000,000,000,000 kilograms or 14 trillion kilograms.

**"Nova Scotia Deep Sea Corals"  
Comprehension Questions**

1. Animals.
2. These tiny sea animals have a strange behavior – they grow, or secrete, a skeleton outside their bodies. This skeleton grows one layer at a time and can grow into a very large coral colony.
3. Pink, red, bronze, and salmon.
4. Tropical corals have algae inside their cells, but cold-water corals eat plankton and other rich organic food.
5. The bubblegum tree is the species of coral called *Paragorgia arborea*. It grows to be 3 meters tall or higher and has a lumpy texture and pink -orange colour.
6. Damage is being done to corals by heavy fishing nets.
7. Norway and Canada.

**"Nova Scotia Deep Sea Corals"  
Trivia Question**

Pale yellow or white.

**"Nova Scotia Deep Sea Corals"**  
**Hard C**

<u>colored</u>	ocean	<u>catching</u>
<u>coral</u>	fancy	<u>secrete</u>
appearance	<u>can</u>	surface
<u>Nova Scotia</u>	<u>colony</u>	species
<u>organic</u>	abundance	<u>cold</u>
scientist	<u>tropical</u>	<u>corn</u>
<u>cod</u>	<u>coat</u>	<u>cause</u>
change	<u>country</u>	place
<u>Canada</u>	ancient	graceful

**"Nova Scotia Deep Sea Corals"**  
**Long A sound**

<u>may</u>	talk	sea
animal	an	<u>made</u>
at	are	also
<u>amaze</u>	<u>graceful</u>	Canada
sea	have	<u>Norway</u>
<u>place</u>	bank	ban

**"Gleaming White Icebergs"**  
**Comprehension Questions**

1. Icebergs are huge landmasses of freshwater ice that have broken off.
2. Freshwater.
3. Calving.
4. Greenland and Antartica.
5. Most of the iceberg is hidden under the ocean.
6. The Grand Banks of Newfoundland. This region is dangerous because of its dense fog.

**"Gleaming White Icebergs"**  
**Reading Between the Lines**

"...like shining, white castles floating on the ocean."

**"Gleaming White Icebergs"**  
**Trivia Question**

The Titanic. Of 2,208 passengers and crew members, one thousand five hundred and three lives were lost. As a result of this tragedy, the International Ice Patrol was set up in 1913.

**"Gleaming White Icebergs"  
Subjects and Verbs**

	<u>Subjects</u>	<u>Verbs</u>
1.	Icebergs	have
2.	Layers	form
3.	Icebergs	drift
4.	Ocean currents	direct
5.	Most	is
6.	visibility	is
7.	months	are
8.	We	observed
9.	chunks	break
10.	people	heard

**"The Atmosphere"  
Comprehension Questions**

1. The atmosphere.
2. It is a plant food-making process.
3. The atmosphere also plays a major role in the water cycle on Earth. It absorbs water from the oceans, lakes, and rivers, which produces water vapor in the air. Under certain conditions, the water vapor is returned to Earth in the form of precipitation, such as rain and snow. It then returns to the atmosphere through evaporation, and the cycle continues.
4. Troposphere.
5. Stratosphere.
6. Thermosphere.
7. It is an invisible ozone layer of colorless gas that benefits all life on Earth. The ozone gas, which is a kind of oxygen, absorbs the sun's harmful UV rays. The ozone layer is in the stratosphere.
8. Over the Antarctic and the Arctic.
9. Scientists discovered that certain industrial chemicals, especially CFC's (chlorofluorocarbons) and halons, are the cause of the depletion, or thinning, of the ozone.
10. Brewer Ozone Spectrophotometer.
11. The thinning of the ozone layer has a large impact on Earth since it allows more harmful UV rays to reach us./A greater exposure to the sun's UV rays causes health problems, harms the fishes' foodchain, and affects forests and crops./ Overexposure to the sun's damaging rays has caused an increase in skin cancer and it can also cause damage to the eye and immune system./For agriculture, the increase in UV rays has been responsible for the decreased growth of some of the world's main crops, such as oats and barley./Also, the harmful UV rays can cause damage to the main food eaten by fish- the tiny plankton.
12. Yes.
13. Heat energy would radiate back into space and the Earth's temperature would be about 60 degrees F colder.
14. The burning of fossil fuels releases some of the same gases (water vapor, carbon dioxide, methane and others), as the natural heat-trapping greenhouse gases in the atmosphere. Some fossil fuels are coal, oil, and natural gas. The build-up of these gases causes the Earth to warm by trapping heat near the Earth's surface.

15. 0.6 degrees Celsius.
16. Some scientists fear that the warmer temperatures will cause the ice in polar regions and glaciers in mountains to partly melt. This melted ice will cause the sea levels to rise causing flooding in the coastal regions. Other problems with global warming would be changes in the weather patterns causing long droughts and more flooding. This would greatly affect agriculture and our food production.

**"The Atmosphere"**  
**Multiple Choice**

1. sun's   2. hole   3. its   4. There   5. of   6. their   7. It's   8. There   9. role   10. Earth's   11. affect  
12. effects/affect

**"The Revolving Earth"**  
**Comprehension Questions**

1. It is an imaginary line that extends right through the centre of the Earth between the North and South poles.
2. In 24 hours, the Earth rotates all the way around. This is what gives us our day and night. It is daytime in places where the Earth faces the sun and nighttime in places where the Earth faces away from the sun.
3. 23 ½ degrees
4. The southern hemisphere is tilted away from the sun from March to September.
5. 364 1/4 days.

**"The Revolving Earth"**  
**Trivia Question**

The Earth is shaped like a round ball, so different places on Earth receive more heat from the sun's rays than others. Around the equator it is very hot because the sun's heat is spread over a small area while at the North and South poles, the sun's heat rays reach the earth at a larger angle, and the heat is spread out over a larger area and it is less strong.

**"Seasons Exercise"**

March to September, summer season: Mexico, Cuba, Egypt, Turkey, Philippines, Spain, Saudi Arabia  
March to September, winter season: Argentina, South Africa, Australia, New Zealand, Chile, Peru, Zambia

**"The Sun"**  
**Comprehension Questions**

1. It is the star closest to the Earth.
2. Blazing gases.
3. Its rotation is faster at its equator than its poles.
4. They are "cool" spots on the sun's surface.
5. 368 megawatts

**"The Sun"**  
**Reading Between the Lines**

1.  $100 \times 5800 = 580,000 \div 373 = 1555$  Celsius

**"The Sun"**  
**Trivia Question**

About 150,000,000 kilometers (93,000,000 miles).

**"The Sun"**  
**Alphabetization**

axis, ball, because, earth, field, heat, large, matter, planet, reach, solid, star, sun, temperature, understood

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1. sunspot, understood
2. closest
3. dark
4. atmosphere, surrounding

**"By the Light of the Moon"**  
**Comprehension Questions**

1. A satellite.
2. Like a flattened circle called an ellipse. It takes 27 days, 7 hours, and 43 minutes to complete an orbit.
3. The moon's light is reflected light from the sun.
4. A thick layer of powdery grey dust and bits of rocks.
5. Cooled molten lava.
6. Craters are large, flat areas that are sunken. They are formed by huge rocks that crashed from outer space into the moon's surface.
7. The outer layer, the crust, is about 60 kilometers (37 miles) thick on the "face" of the moon but it is almost double in thickness on the far side. A thick layer of hard rock forms the next layer - the mantle. Not much is known about the moon's core. Scientists believe the interior of the moon's core is no longer active - unlike the Earth.
8. July 20, 1969.

**"By the Light of the Moon"**  
**Trivia Questions**

1. Rilles are cracks and valleys on the surface of the moon.
2. No, it has a slight bulge on it's "face," believed to be caused by the earth's gravitation.

**"By the Light of the Moon"**  
**Fill in the Blanks**

1. howled
2. man-made
3. orbit
4. tilted
5. Sunlight
6. meteorites
7. Astronauts
8. Craters
9. footprints

**"The Solar System"  
Comprehension Exercise**

1. Mercury 2. Saturn 3. Mars 4. Pluto 5. orbits 6. Satellites, moons, comets, asteroids 7. star  
8. Milky Way 9. 364 1/4 10. 88 11. Pluto

**"The Solar System"  
Trivia Question**

The Earth circles around the sun at an average distance of 149,600,000 kilometers.

**"The Solar System"  
Syllables**

plan/et, life, cer/tain, some/times, be/long, com/plete, awe/some, e/nor/mous, mix/ture, sat/el/lite, fam/i/ly,  
gi/ant, on/ly, spe/cial, Earth, or/bit

**"Mars"**

Sources for this exercise are the following Internet sites accessed 4/1/03:

<http://quest.arc.nasa.gov/mars/teachers/tg/opening/A3.html>

<http://seds.lpl.arizona.edu/nineplanets/nineplanets/spacecraft.html#marin4>

<http://csep10.phys.utk.edu/astr161/lect/mars/features.html>

1. b 2. a 3. c 4. a 5. b 6. a 7. a