

CANADA FUELED BY resources



Canada – Fueled by Resources is one of a series of online resources developed by the Canadian Centre for Energy Information (Centre for Energy) to accompany its print learning resources and make them more accessible to a

variety of learning communities. All of the elementary online resources, like this one, are introduced by Petro the parrot.

This resource, designed for grade four and five students studying Alberta's and Canada's geography, is an extension of the Centre for Energy print learning resource: *Canada – Fueled by Resources*. The online activities use graphics, sound, animation and real-world examples to encourage students to look closely at the location of Canada's petroleum resources and how they impact Canadians in all parts of the country. Students can work through the online activities alone or with a friend.

Canada – Fueled by Resources has two activities:

- **Canadian Hide & Seek:** an interactive map of Canada, with hidden text highlights illustrating petroleum basins and areas of significant oil and gas activity; and
- **Canadian Clues:** a drag and drop geography matching game with three sets of 10 questions each.



Canadian Centre for Energy Information

Your Resource Source

The Canadian Centre for Energy Information (Centre for Energy) is a non-profit organization created in 2002 to meet a growing demand for balanced, credible information about the Canadian energy sector. On January 1, 2003, the Petroleum Communication Foundation (PCF) became part of the Centre for Energy. Our educational materials will build on the excellent resources published by the PCF and, over time, cover all parts of the Canadian energy sector from oil, natural gas, coal, thermal and hydropower to nuclear, solar, wind, fuel cell and other alternative sources of energy.

The Centre for Energy does not take positions on issues. The Learning Resource Series was developed using a multi-stakeholder review process with the aim of creating fact-based, balanced documents. Educators helped ensure that the educational materials are interesting and applicable to students in schools across Canada.

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To find out more about the Canadian Centre for Energy Information or to find up-to-date information on petroleum issues, statistics or Centre for Energy education resources, please visit the Centre for Energy's portal at: www.centreforenergy.com.

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Curriculum Links and Learning Outcomes

The activities in *Canada – Fueled by Resources* have been previously authorized as fitting within the following Alberta curriculum links and learning outcomes. This designation is currently under review, with a decision expected in fall 2005.

SOCIAL STUDIES 4

Alberta: Its Geography and People

- Locate and describe major geographical regions and specific geographical features, such as lakes, rivers, cities and mountains.
- Use colour contour and visual relief maps to visualize the nature of the areas shown.
- Compare distance in kilometres to places under study.
- Analyze how the use of a natural resource can affect the rest of the environment.
- Predict the consequences of misusing natural resources.
- Compare and contrast points of view and underlying values, e.g. about how Alberta's resources are used.
- Draw conclusions about the use of renewable and non-renewable resources.

SOCIAL STUDIES 5

Canada: Its Geography and People

- Gather information by interpreting relationships and drawing inferences from graphs, tables, charts, pictures and atlases.
- Read and interpret maps/legends of Canada showing: political divisions, physical features, major natural resources within regions, population distribution and transportation routes.
- In kilometres, compare distances to places under study.
- Draw conclusions about how the characteristics of a physical region affect natural resources, occupations, population distribution and transportation.
- From physical geography and latitude, infer human activities and ways of living.
- Summarize information from a variety of sources by writing two or more well-organized paragraphs, supporting main idea(s) with appropriate details.

Canadian Hide & Seek

How To Play

This game begins by building an interactive map of Canada. Three “Did you know...?” text boxes accompany each step in the map building process, giving players an introduction to the information they will be working with throughout the activity. Once the map is complete, players are told that 10 other facts are hidden within the map. Players must use the mouse to roll over certain locations to find all 10 facts, which pop up accompanied by a ringing sound and explanatory text. The player must click NEXT to keep searching. A counter adds up the number of facts found. Players cannot proceed until all 10 hidden facts are located.

Answer Key

Text Highlight	Rollover Location
1. The first oil well in North America was drilled near Sarnia, Ontario in 1858.	Sarnia, Ontario
2. Fort McMurray is right in the middle of the huge Athabasca oilsands deposit. The oilsands will be one of our biggest sources of petroleum in the future.	Fort McMurray, Alberta
3. Sometimes oil and gas have to travel long distances to reach the people who use it, like you! More than 700,000 km of pipelines send oil and gas across Canada.	Norman Wells, Northwest Territories
4. Many big oil and gas discoveries have been made offshore, especially along Canada's East Coast.	Any offshore Newfoundland or offshore Nova Scotia petroleum locations
5. Northern Canada has lots of oil and gas below layers of ice and snow.	Yukon
6. Most of Canada's oil and gas comes from the Western Canada Sedimentary Basin, which lies under Alberta, the Northwest Territories, Saskatchewan and parts of Manitoba and British Columbia.	Northern Alberta or Southern Northwest Territories
7. Alberta's first major oil and gas discovery was at Turner Valley in 1914.	Turner Valley, Alberta
8. After drilling 133 holes without finding any oil, Imperial Oil Limited made Alberta's biggest oil discovery at Leduc in 1947.	Leduc, Alberta
9. In 18 refineries across Canada, oil gets made into products like gasoline for cars and jet fuel for airplanes. Dartmouth, Nova Scotia; St. John, New Brunswick;	Montréal, Québec; Sarnia, Ontario; or Burnaby, British Columbia (Refineries are located at: Come by Chance, Newfoundland and Labrador; Montréal, Québec (2); St-Romuald, Québec; Sarnia, Ontario (2); Oakville, Ontario; Corunna, Ontario; Nanticoke, Ontario; Regina, Saskatchewan; Bowden, Alberta; Edmonton, Alberta (2); Fort Saskatchewan, Alberta; Burnaby, British Columbia; Prince George, British Columbia.)
10. Heavy oil, used for making things like tar, is found near Lloydminster, Alberta/Saskatchewan.	Lloydminster, Alberta/Saskatchewan

Canadian Clues

How To Play

There are three rounds of play in this activity, with 10 questions each. One at a time, questions pop up in the text box at the bottom of the screen. The answers to the questions are always a location on the map of Canada. Players must read each question, decide what the answer is and find the location on the map. They then drag the Canadian flag over the map and drop it on the correct location. Players must drop the flag on the first letter of the location's name, if it's a city, town, province, territory or water body. If it's a region, like southwestern Manitoba, players can drop the flag anywhere within the region.

When players find the correct location, they click "NEXT" to go on to the next question. If they get an answer wrong, the flag will not stick on the map. Instead, the flag immediately returns to its starting position so players can try again. After 15 seconds, players are given a hint about the right answer. After 30 seconds, the flag automatically moves to the correct location, and players must move on to the next question.

Correct responses are reinforced with applause and a cheerful ringing sound. A check mark appears in the bottom right corner of the screen each time players identify the correct location to a question. Incorrect responses are indicated with a funny groan.

A clock times how long it takes for players to correctly answer all 10 questions. At the end of the activity, players are given their elapsed time in seconds and their score. The score is based on an automatic calculation that divides the total elapsed time by the number of answers they got right. The lower the score, the better, since the object is to get the correct answers as quickly as possible. For example, if players took 200 seconds to complete the 10 questions, and got eight out of the 10 correct, their score would be 25. If players took 250 seconds and only got four out of 10 correct, their score would be 62.5. The program does not track players' scores from game to game, so players might wish to write down their scores each time they play to see if they can improve their scores on the next round. At the end of a round, players can repeat the activity with different questions. Once they have played all three rounds, they can go back to the first round to try to improve their previous score.

Answer Key Game One

Question	Hint	Answer
1. Dinosaur bones and fossils can be found near this Alberta city.	Home of the hoodoos.	Drumheller, Alberta
2. What's the farthest city in Canada from St. John's, Newfoundland?	You can only get there by plane or ice-road. Newfoundland and Labrador	Tuktoyaktuk, Northwest Territories – more than 9,000 km away from St. John's,
3. If you drove from Edmonton to Calgary, what large city would you pass halfway through your trip?	Named after an animal.	Red Deer, Alberta
4. What is Canada's newest territory?	Its name means "our land" in the Inuktitut language.	Nunavut
5. What city sits right in the middle of Canada's biggest oilsands deposit?	Oilsands are found only in Alberta.	Fort McMurray, Alberta
6. Oil and gas have been found off the coast of two Atlantic provinces. Find one of them.	Their capital cities are Halifax and St. John's.	Nova Scotia and Newfoundland and Labrador
7. What province or territory has both diamonds and petroleum as resources?	Land of the midnight sun.	Northwest Territories
8. What heavy oil city is on the border of Alberta and Saskatchewan?	Starts with a man's name.	Lloydminster, Alberta/Saskatchewan
9. What is the closest big city to the oil and gas rigs off the coast of Newfoundland and Labrador?	Go as far east as you can go.	St. John's, Newfoundland and Labrador
10. What oil-rich province also has the most farmland?	Flat, flat, flat!	Saskatchewan

Answer Key Game Two

Question	Hint	Answer
11. What eastern province or territory has mining, petroleum and fishing as its three biggest industries?	Look for a long coastline.	Newfoundland and Labrador
12. What oil-rich territory borders Alaska?	Land of the gold rush.	Yukon
13. If a natural gas pipeline ran between Vancouver, British Columbia and Edmonton, Alberta, what large mountain range would it pass under?	Home of Banff and Jasper National Parks.	Rocky Mountains
14. Where was North America's first oil well drilled in 1858?	Not in Alberta!	Sarnia, Ontario
15. Which one of the Great Lakes does not have oil or gas below it?	Think big!	Lake Superior
16. What is the capital of the province with the most forest lands?	Most people there call the trees "arbres".	Québec City
17. What is Canada's largest island?	Brrrrr!	Baffin Island, Nunavut
18. What Alberta town was the site of Canada's most important oil strike?	It's near Edmonton.	Leduc, Alberta
19. There are two seas with oil and gas under the sea floor. Find one of them.	The water usually has ice on it.	Beaufort Sea and Labrador Sea
20. What major river flows past Montréal and Québec City?	Ships travel this river to and from the Atlantic Ocean.	St. Lawrence River

Answer Key Game Three

Question	Hint	Answer
21. If you left Ontario driving west, what's the first capital city you would come to?	You would be going towards the Pacific Ocean.	Winnipeg, Manitoba
22. What is the biggest city in Canada?	It's in Ontario.	Toronto, Ontario, home of 4.7 million people.
23. What is the capital of Nunavut? fish" in the Inuktitut language.	Its name means "place of many	Iqaluit, Nunavut
24. In what city would you find the most people working in the petroleum industry?	Home of the Stampede.	Calgary, Alberta
25. What gas-rich Saskatchewan town is named after a fast-moving stream?	Its name is two words.	Swift Current, Saskatchewan
26. Two British Columbia forts have turned into oil and gas towns. Find one of them.	Check out the Western Canada Sedimentary Basin.	Fort St. John and Fort Nelson, British Columbia
27. If you worked on an oil rig off the coast of Nova Scotia, what city would you go to for supplies?	It's on the Atlantic Ocean.	Halifax, Nova Scotia
28. In what region of Manitoba might you find oil and gas?	Look at the Western Canada Sedimentary Basin.	The southwest corner of Manitoba, near Saskatchewan
29. What Alberta city has the most oil refineries?	Where Wayne Gretzky first played pro hockey.	Edmonton, Alberta
30. What large British Columbia city sits between the Pacific Ocean, the Coast Mountains and the United States border?	Lots of sandy beaches!	Vancouver, British Columbia