



Grade 4 - Regions of Alberta



4.1 Alberta: A Sense of the Land

General Outcome

Students will demonstrate an understanding and appreciation of how elements of physical geography, climate, geology and paleontology are integral to the landscapes and environment of Alberta.

Specific Outcomes

Values and Attitudes

Students will:

4.1.1 Value Alberta's physical geography and natural environment:

- appreciate the diversity of elements pertaining to geography, climate, geology and paleontology in Alberta (LPP)
- appreciate how Alberta's fossil heritage contributes to the province's unique character (LPP)
- appreciate the variety and abundance of natural resources in Alberta (ER, LPP)
- appreciate the environmental significance of national and provincial parks and protected areas in Alberta (ER, LPP)
- appreciate how land sustains communities and quality of life (ER, LPP)
- demonstrate care and concern for the environment through their choices and actions (LPP)

Knowledge and Understanding

Students will:

4.1.2 Examine, critically, the physical geography of Alberta by exploring and reflecting upon the following questions and issues:

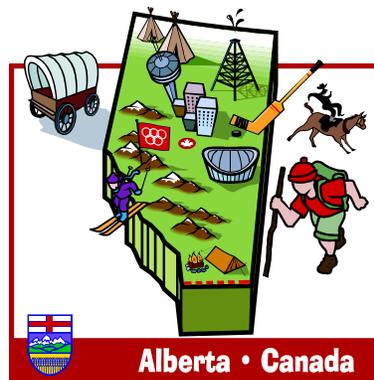
- Where is Alberta located in relation to the other provinces and territories of Canada? (LPP)
- What are the major geographical and natural vegetation regions, landforms and bodies of water in Alberta (e.g., prairie region, forests, rivers, hoodoos, Rocky Mountains, oil sands)? (LPP)
- What are the factors that determine climate in the diverse regions of Alberta (e.g., latitude, mountains)? (LPP)
- What are the significant natural resources in Alberta, and where are they located (e.g., mineral deposits, coal, natural gas and oil, forests)? (ER, LPP)
- How are Alberta's provincial parks and protected areas and the national parks in Alberta important to the sustainability of Alberta's natural environment? (ER, LPP)

4.1.3 Examine, critically, how geology and paleontology contribute to knowledge of Alberta's physical geography by exploring and reflecting upon the following questions and issues:

- What geological features make Alberta unique (e.g., hoodoos, Rocky Mountains, foothills, oil sands)? (LPP, ER)

4.1.4 Analyze how Albertans interact with their environment by exploring and reflecting upon the following questions and issues:

- In what ways do the physical geography and natural resources of a region determine the establishment of communities? (LPP)
- How are natural resources used by Albertans (i.e., agriculture, oil and natural gas, forests, coal)? (ER, LPP)
- How do Albertans deal with competing demands on land use (e.g., conservation, solar and wind power, recreation, agriculture, oil exploration, forestry)? (ER, LPP)
- Whose responsibility should it be to ensure the preservation of national parks, provincial parks and protected areas in Alberta? (C, LPP, PADM)



Regions of Alberta

Alberta is a big province.

It has six natural regions.
Can you find the six regions on
the map?

Use the legend to color your map.



http://aet.alberta.ca/englishexpress/articles/pdf/ra11_09_13.pdf

Zooming In...Alberta's Regions – (Learn Alberta) <http://www.learnalberta.ca/content/sszi/en/index.html>

Boreal Forest

- Covers most of northern Alberta
- Largest natural region in Alberta
- The Athabasca, Smoky, Peace and Hay rivers all run through this region
- They connect to the Rocky Mountains and the Arctic Ocean



<http://raysweb.net/specialplaces/pages/boreal.html>

Boreal Forest

Land

- The land varies in this region from low, flat lands and meadows to hilly areas and **moraines**. **What are moraines?**
- There are areas in the ground that look like large holes on the surface. This is because there are layers of solid rock called bedrock found deep under the soil. In the bedrock, there are caves. These caves sometimes collapse and huge sinkholes appear.
- The land was once covered with salt water – ocean.
- There is a large salt bed located in this region. The salt is mined and used for table salt and road salt. It is also sold to be used in water softeners.
- Muskegs are swamp water mixed with partly dead plants and covers much of this region. **What are muskegs?**
- Cold Lake is a famous lake in this area
 - o Famous for fishing and became known as “Dead Lake” because of overfishing. **What else can cause a lake to become “dead”?**
 - o It was restocked with fish, and laws were put in place to prevent it from happening again



<http://albertawilderness.ca/>

Boreal Forest

Plants

- There are boreal forests all around the northern part of the world
- Mostly coniferous trees with some deciduous trees
- Plants and berries included the buffalo berry, Labrador tea, blueberry and willows
- Cotton grass
- Huge forest fire in 1919 killed many animals and destroyed much of the forest. Smoke was found as far away as London, England!



<http://northernshade.ca/2008/05/23/will-the-pines-survive-the-pine-beetle/>

Boreal Forest

Animals

- Over 40 different kinds of fish found in this region
- Over 50 types of mammals, including: elk, bison, moose, bears
- Whooping cranes, pelicans



<http://albertawilderness.ca/>

<http://en.wikipedia.org/wiki/File:YellowPerch.jpg>

Boreal Forest

Land Use (Natural Resources)

- Forestry and petroleum are important industries in this region
- Farming
- Oil sands

What types of products can come from the forestry industry?

How can we protect the forest and keep it healthy while letting people use it for industry and recreation?



<http://albertawilderness.ca/>

Boreal Forest

Climate

- Longer winters and short, cooler summers than most regions in Alberta
- More rain than other regions
- In some areas, the ground remains frozen all year long and is called permafrost **What would be difficult about permafrost?**
- The area around Peace River is unique –
 - o It receives moist, warm air from British Columbia which means that this is the most northern area in North America where grain is grown.
 - o Crops such as alfalfa and clover grow here because of the moisture, sunshine and fertile soils.



<http://www.findthepostalcode.com/location.php?province=AB&location=Rocky+View+++++No.44>
http://www.trekearth.com/gallery/North_America/Canada/Prairies/Alberta/Athabasca/photo805430.ht

Boreal Forest

- Elk Island National park is fenced to protect elk from being hunted **Have you ever been to this park?**
- It also keeps the elk and bison from moving away
- It is the only national park in Canada that is fenced
- Lac La Biche is an important town in Alberta's history
 - o A fur trading post was built there in 1799 and many French people settled there
 - o Rivers and lakes were important travel routes for supplies
 - o Fish and farming was important in this area
 - o The railway connected Lac La Biche with Edmonton in 1915
 - o Is a national historic site



<http://www.canada-photos.com/picture/elk-island-national-park-alberta-95.htm>
http://www.llbchamber.ca/index.php?option=com_content&view=article&id=5&Itemid=10

Boreal Forest

Jobs –

- There are many motels and restaurants for workers on the oil rig
- The Fort McMurray area is home to many oil sands projects

What types of jobs do you think are available in this region?

