Grade 4 - Regions of Alberta

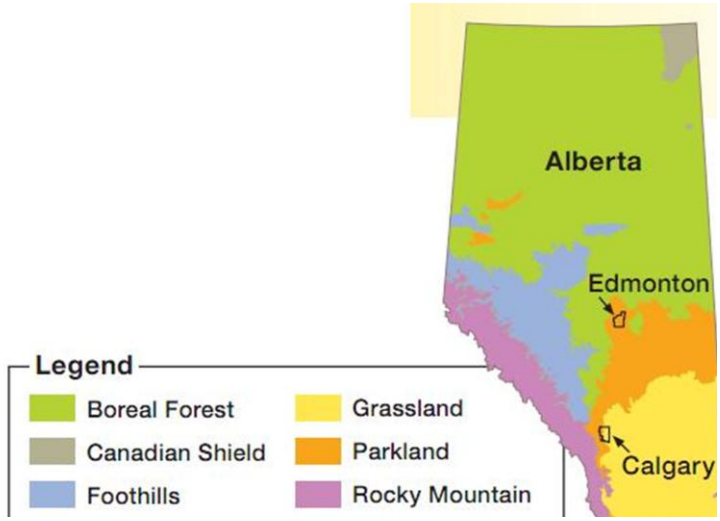
4.1 Alberta: A Sense of the Land
General Outcome
Students will demonstrate an understanding and appreciation of how elements of physical geography, climate, geology and paleontology are integral to the landscapes and environment of Alberta.
Specific Outcomes
Values and Attitudes
Students will:
4.1.1 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_l3.pdf

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

Foothills Region

• Located along the eastern slopes of the Rocky Mountains.
• First Nations people lived in this region hundreds of years ago.

http://www.trekearth.com/gallery/North_America/Canada/

How can people's activities affect animal life?

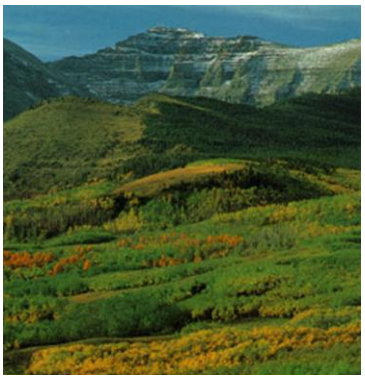
http://www.wisdomstick.com/portraits.html

Foothills Region

Land

- There are forested hills, rolling grasslands and broad river valleys.
- The elevation gets higher the closer you get to the Rocky Mountains.
- There are many rivers and dams.
- The Brazeau Dam controls water flow and is used to produce electricity.

What is a dam? What is it used for?



http://bbs.keyhole.com/ubb/showflat.php?Number=190886
http://raysweb.net/specialplaces/pages/parkland.html
http://blog.travelpod.com/travel-blog-entries/ehjelter/1/1254

Foothills Region

Plants

Coniferous trees have pines and stay green all year round. They are seen around the upper foothills region. Examples of these trees are Lodge pole pine, Spruce and Fir trees.

The lower foothills have short grassy areas, bushes and **deciduous** trees. Deciduous is the opposite of coniferous. **What do you think happens to these trees?**

Examples of deciduous trees are: Aspen, Birch, Willow and Poplar.

Why do you think there are so few communities in the Foothills Region?

http://www.for.gov.bc.ca/hfd/library/documents/treebook/lo
http://withlightsteam.com/?p=442
http://www.tree-pictures.com/poplar_tree_images.html
http://hovergirl.wordpress.com/photos/

Foothills Region

Animals

Animals have **adaptations** that help them survive in their environment. These are special features that help them.

Woodland caribou have several adaptations, such as long legs for walking in the snow and wide, curved hooves for digging in the snow to find food. **Can you think of other animals that have adaptations?**

The woodland caribou is considered an **endangered** animal in Alberta. **What could be some reasons that there aren't as many caribou as there used to be?**

Other animals found in this region include moose, black bears, coyotes, and cougars.

What does endangered mean?

http://www.fws.gov/pacific/lawenforcement/Sam Stuff/Sept-
http://www.usageorge.com/Wallpapers/Animal/Moose.ht
http://animal.discovery.com/mammals/cougar/
http://www.arizonahunters.com/2010/11/black-bears-in-ari
http://www.dinosoria.com/coyote.htm

Foothills Region

Land Use (Natural Resources)

Goose Mountain Ecological Reserve – is an area where plants are protected. Hikers are allowed to visit, but you cannot drive your car or pick the plants that grow there.

Fish, birds and animals are types of natural resources found in this area.

Oil, gas and coal are found here.

Metals, rocks and sand are also found in this region.

There are many paper mills found in this region. Trees can be used to create paper products as well as furniture and other wooden items. **Do you think it is a good idea to cut down trees to make things?**

What is the difference between these types of natural resources?

http://www.superstock.com/stock-photography/paper+m
http://www.flickr.com/photos/royluck/2498713503/

Foothills Region

Climate

The Pacific Ocean and The Rocky Mountains affect the climate of the Foothills region.
Warm, moist air moves in from the ocean and rises over the Rocky Mountains. It drops most of the moisture off in British Columbia or on the mountains in the form of rain or snow.

Warm winds are created as the air moves from the mountains to the foothills. They pick up speed and can become quite warm. When this happens in the winter, it is called a **chinook**.

What is a chinook? What could a sudden chinook do to the area in winter?

http://www.flickr.com/photos/stuckinthemetal/308099508
http://www.flickr.com/photos/pageworld/5646413213/
http://www.stormtrack.org/forum/showthread.php?22070-A

Foothills Region

Travel Alberta Canada

- Kananaskis and Canmore - http://www.kananaskis.com/
- Calaway Park - http://www.calawaypark.com/
- White Water Rafting - http://www.rainbowriders.com/
- Canada Olympic Park – http://www.winsportcanada.ca/cop/index_cop.cfm

http://community.airmiles.ca/en/memory_gallery_detail/
http://ibackpackcanada.com/backpack-calgary-alberta-ca
http://www.whitewaterraftingtips.com/family-white-water-
http://www.flickr.com/photos/altamons/100886005/
http://www.rockymountainreservations.com/
http://www.winsportcanada.ca/cop/index_cop.cfm

Foothills Region

Jobs –

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