



9. SHIFTING THE OIL SANDS



Activity overview

Students will take a look at the oil sands and their role in Canada's energy landscape. Students will predict how Canada's environment and economy would change if the oil sands were in another part of the country.

Grade level

▷ 7–12

Time required

▷ 30 minutes

Materials

- ▷ Coloured chains (4 colours)
- ▷ Oil sands information card (1)
- ▷ Oil sands map cards (4)

Set-up

Place one coloured chain and one oil sands map on each corner of the map.

Introduction

Once students have had an opportunity to explore the Giant Floor Map on their own, bring their attention to the province of Alberta. What do they see in Alberta and how does this differ from other provinces and territories? Based on the geography of Alberta, why do they think this province is so rich in energy resources? Ask students to locate any patterns or trends of human development related to energy development in Alberta.

As a class, refer to the oil sands information card and use the red chains to outline the general area of the oil sands. Have students sit in a circle around the area and discuss what the oil sands are, using the information on the back of the card. Discuss, from a geographic perspective, the positive and negative perceptions of the oil sands and their exploitation. Ask your students to guess the size of the oil sands, and then calculate the area using hands or the scale on the map.

Discuss how the development of the oil sands affects humans, both positively and negatively, using the map to illustrate your points. Be sure to factor in communities that may not be shown on the map, including Indigenous ones.

Development

Divide students into four groups, and instruct each to sit on a different corner of the map. Have each group outline the new location of the general area of the oil sands on the Giant Floor Map, using the coloured chains and the oil sands map.

After all groups have outlined the new oil sands locations, ask them to decide how the oil (called bitumen) will be extracted and transported, and to think about how local communities might be impacted. When all groups have presented, ask how Canada might change economically, environmentally, culturally and politically as a result of continued extraction from the oil sands. Have students refer to the questions on the back of the map card to organize their answers. As a class, decide how the oil sands might affect different communities across Canada. Be sure to examine as many different parts of Canada as possible. What predictions can students make regarding the oil sands?





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Conclusion

In recent years, some companies have lowered or stopped their production in the oil sands. Discuss how these changes have affected energy production and transmission in Canada. Look to the future and discuss as a class if Canada will ever be able to not rely on the energy and products of the oil sands. Would such a shift be possible? If so, what would have to change? Be sure to focus on direct and indirect energy uses, needs and innovations. Have students illustrate the changes on the Giant Floor Map.

Extend your geographic thinking

The Canadian oil sands are world-leading in innovation, technology and safety regulations. Once the Giant Floor Map has left your school, complete an online research project that focuses on one or more of the ground-breaking advances that Canadian technology has brought to the world.

Links to the Canadian National Standards for Geography

Essential Element 1: The World in Spatial Terms

- ▷ Map projection (e.g., size, shape, distance and direction)
- ▷ Location/allocation situations (e.g., the best location for a fast food outlet and the extent of its market area; the best location for a hospital and the area it serves)

Essential Element 2: Places and Regions

- ▷ Physical and human characteristics of places and regions in Canada and the world
- ▷ Concepts of formal, functional and perceptual regions
- ▷ The importance of places and regions to individual and social identity

Essential Element 3: Physical Systems

- ▷ Physical processes shape patterns in the physical environment

Essential Element 4: Human Systems

- ▷ Economic development by world regions, countries and regions within countries