

## 4. RESOURCES IN MOTION



### Activity overview

This activity explores the different ways Canada's energy resources are transported across the country. Students will compare each type of transportation and determine how Canada's geographical landscape influences the movement of energy resources.

### Grade level

▷ K-12

### Time required

▷ 30 minutes

### Materials

- ▷ Energy icons (43)
- ▷ Coloured chains (4)
- ▷ Transportation image cards (5 x 5)
- ▷ Transportation fact cards (10)
- ▷ Teacher answer sheet (1)

### Set-up

Lay the transportation fact cards along the map's border.

### Introduction

Begin by having students explore the map independently, paying attention to the legend and scale. Ask groups of students to calculate the size of your province or territory, the distance to the nearest coast, and the overall width and length of Canada using the scales in the corner. Next, discuss the population distribution of Canada, highlighting that more than 80 per cent of Canada's population lives within 200 kilometres of the American border. Discuss how this distribution of people is reflected in the energy production and transmission information on the map. Have students explore the various communities displayed on the map and discuss how these communities, and the many other ones that are not shown on the map, power their lives and access essential energy resources.

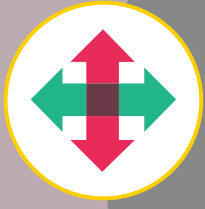
### Development

Explain to students that they will be looking at the energy transportation network in Canada. Have them list all the transportation methods they see on the map (train, ship, pipeline, roads, transmission lines) and ask students to reflect on how these have changed over the past several decades. Have students consider what this map would have looked like in the past and what it may look like in the future.

Take a closer look at the various transportation methods used in Canada. Divide your students into five groups and distribute one set of transportation image cards to each group. As students explore the map, have them use the legend to locate their group's mode of transportation and then place their cards in the appropriate locations on the map. Have each group discuss and present on their form of transportation, sharing the benefits, drawbacks and considerations of each type of transportation. Also, ask students to identify any proposed transportation methods that they see on the map and what benefits and drawbacks these proposed transportation methods will have for Canada.

Ask for your students' opinions about which mode is the most cost-effective, which is the most environmentally friendly and which covers the most distance. Make sure they explain their reasoning.





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### Conclusion

Once all groups have presented, bring attention to the 10 fact cards placed around the map's border. There are two fact cards for each mode of transportation examined in class. As a class, work to match these fact cards with the various modes of transportation. Encourage students to explain their reasoning. Use the teacher answer sheet to confirm that the cards have been matched correctly.

### Extend your geographic thinking

Lead a class discussion about how resources might be transported in the future. Which modes may become more or less common? How might this possible change affect the sustainability of communities across Canada and around the world?

### Links to the Canadian National Standards for Geography

#### Essential Element 2: Places and Regions

- ▷ Perceptions of places and regions
- ▷ Changes in places and regions over time

#### Essential Element 4: Human Systems

- ▷ Transportation networks in daily life
- ▷ Transportation (people and goods) and communication networks
- ▷ Transportation and communications networks in Canada and the world

#### Essential Element 5: Environment and Society

- ▷ How human activities change Earth (e.g., agriculture, transportation, industry)

#### Essential Element 6: The Uses of Geography

- ▷ Role of multiple points of view in contemporary geographic politics and issues