



ALTERNATIVE ENERGY SOURCES

Suggested time: 90 minutes

What's important in this lesson: Finding new and renewable sources of energy is important to lessen Canada's dependency on non-renewable energy sources. Alternative energy sources can provide Canadians with clean, and plentiful sources of energy.

Complete these steps:

1. Fill in the Alternative Energy Sources organizer (your teacher has the answer sheets that you can borrow to fill in the organizer).
2. Chose one of the nine alternative energy sources listed to research.
3. Once you have finished your research, prepare a presentation for the teacher.

Hand-in the following to your teacher:

1. The completed Alternative Energy Sources organizer.
2. The written component of your presentation.

Questions for the teacher:



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Using the Glossary in *Making Connections*, define the following terms:

1. Non-Renewable Resource: _____

2. Renewable Resource: _____

3. Alternative Energy Source: _____



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- 1) Fill in the following table using the attached answer sheets.
- 2) Once you have completed your table, select one of the alternative energy sources and research it in greater detail (see the attached assignment sheet).

	ALTERNATIVE ENERGY	POSITIVE CHARACTERISTICS
1	PHOTOVOLTAIC CELLS	① _____ ② _____ ③ _____ ④ _____ ⑤ _____ ⑥ _____ ⑦ _____ ⑧ _____ ⑨ _____ ⑩ _____
2	FUEL CELL	① _____ ② _____ ③ _____ ④ _____ ⑤ _____ ⑥ _____ ⑦ _____ ⑧ _____ ⑨ _____ ⑩ _____
3	ENERGY FROM WASTE	① _____ ② _____ ③ _____ ④ _____ ⑤ _____ ⑥ _____ ⑦ _____
4	WAVE ENERGY	① _____ ② _____ ③ _____ ④ _____



	ALTERNATIVE ENERGY	POSITIVE CHARACTERISTICS
5	SOLAR ENERGY	① _____ ② _____ ③ _____ ④ _____ ⑤ _____ ⑥ _____ ⑦ _____ ⑧ _____
6	GEOTHERMAL ENERGY	① _____ ② _____ ③ _____ ④ _____ ⑤ _____ ⑥ _____ ⑦ _____ ⑧ _____
7	TIDAL ENERGY	① _____ ② _____ ③ _____ ④ _____ ⑤ _____ ⑥ _____
8	HYDRO ELECTRIC POWER	① _____ ② _____ ③ _____ ④ _____ ⑤ _____
9	WIND ENERGY	① _____ ② _____ ③ _____ ④ _____ ⑤ _____ ⑥ _____ ⑦ _____

When you have finished this organizer, hand it in to the teacher. Return the answer sheet to the teacher.

Now, from the table you just finished filling in, choose one Alternative Energy Source to research.

Student Handout: Unit 3 Lesson 3



ALTERNATIVE ENERGY SOURCE: _____

Using the reference sources listed, answer the following eleven (11) questions about your renewable energy source on a separate piece of paper. Use your own words, and use proper sentence format.

1. How does your alternative energy source work?
2. Is it a good alternative source of energy?
3. Why or why not?
4. Is it pollution free or does it reduce pollution?
5. Explain your answer.
6. Is it environmentally impact free?
7. Explain your answer.
8. Is your alternative energy source currently being used in Canada?
9. Give an example of where it is being used.
10. Is it realistic to use your alternative energy source on a large scale in Canada?
11. Explain your answer.

You will need to research your alternative energy sources. You can use a combination of the information found in the *Making Connections* textbook and the Internet. Here are some Internet sites to get you started:

PHOTOVOLTAIC CELLS	http://www.newenergy.org/sesci/publications/pamphlets/photovoltaic.html
FUEL CELL	http://www.fuelcellscanada.ca/faq.html
ENERGY FROM WASTE	http://www.re_energy.ca/t_biomassenergy.shtml
WAVE ENERGY	http://www.aresearchguide.com/energy.html
SOLAR ENERGY	http://www.newenergy.org/sesci/publications/pamphlets/active.html
GEOHERMAL ENERGY	http://www.geothermal.ca/whatis.html
TIDAL ENERGY	http://www.aresearchguide.com/energy.html
HYDRO ELECTRIC POWER	http://www.eere.energy.gov/RE/hydropower.html
WIND ENERGY	http://www.eere.energy.gov/RE/hydropower.html



Verbal Presentation

Now, you have to prepare a presentation to present your findings to the teacher. Your presentation should be between 2 and 5 minutes.

1. You will be marked on your presentation style (level 4, 3, 2, 1, R), on the information in your presentation (complete or incomplete), and your written work (complete or incomplete).
2. Be creative, and feel free to use any method of presentation that you wish.
3. You can use props, if you wish.
4. Remember that you have to hand in a written copy of your work.