

Energy: Our future primary resource?

Thinking questions about the topic:

•What do you think your total energy consumption has been since you woke up this morning to when you got to school? Write down all the things you've used that required energy (ex. alarm clock, transportation, etc.)

How do you think the electrical energy you've used today was produced?

Canada + Energy Use = Waste?

Canada is either the _____ users of energy (per capita) in the world.

WHY? List the 4 reasons why Canada can't help but being an energy wasting country:

Ø Live in a Northern climate = _____ temperatures

Ø

Ø Small population over large _____ = energy for _____

Ø

Ø Have advanced _____ economy = great deal of energy use

Ø

Ø Energy relatively _____ here = wasteful

How is Energy Used in Canada?

The unit used to measure energy is? _____

But what units do the energy sector use? _____

What percentage of Canada's total energy supply goes towards consumer and business use?

Canada + Energy Use

The 2 categories that energy are broken up into are:

Example

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Production of Electrical Power: What provinces produces the following type of electrical power:

i) Coal: _____

ii) Hydro: _____

iii) Nuclear: _____

Name: _____

Coal

The 3 types of coal are: 1) _____ 2) _____ 3) _____

How is coal formed?:

300 million years ago	100 million years ago	Today

Does Canada use the majority of its coal? _____

Why? _____ Where? _____

How do Canadian use coal?

Oil and Gas

What creates oil and gas?

Where is it located?

Name and differentiate between the 2 types of wells used for extracting oil and gas.

Is Canada a major player in the worldwide oil industry?

How do you know?

Electricity

- Most electrical power is produced in turbines,
- _____ are turned by mechanical energy created through:

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Name: _____

Electric Thermal Generation

- _____, _____, _____, _____ & geothermal electrical generation all works on the same principal
- Heat in _____ produces _____, which turns the turbine blades, rotating the turbine shaft

Hydroelectricity

- Electricity is produced through the _____ energy of the water _____ down through the _____ and turning the turbine blades.

What is the name of the closest hydro- power generating station?:

Wind Energy

- Electrical power can also be produced by wind energy.
- Wind turns turbine _____, which then turns the turbine shaft, creating electricity in the _____.