

Assignment: Alternative Energy Resources

Background Information

Electrical energy could almost be called the “**in between**” form of energy. First, other forms of energy (from various energy resources) are converted into electrical energy in electrical generating stations. Then, the electrical energy is converted to other forms of energy for a variety of uses. For instance, an electric kettle heats water, a television produces both light and sound energy, and an electric fan produces mechanical energy that is used to turn a fan blade.



About 89% of the energy resources used in Canada are non-renewable, meaning that they cannot be replaced in a reasonable amount of time, such as a human lifetime. The remaining 11% is considered to be renewable because these resources constantly replenish themselves.



Your Task

Your task is learn about an alternative energy resource by researching information on the internet.

Complete the **information sheet that has been shared with you in your Google drive.**

You have 1 period to gather as much information as you can.

You will be sharing this information with your classmates tomorrow.

Assignment Requirements:

Your Energy Resource project must include the following information:

- Origin** of the resource (where the resource comes from)
- How to **obtain** the resource (how is the resource extracted)
- How to **convert** the resource into a useable form of energy
- Advantages** and **Disadvantages** of using the resource
- Diagram(s) / Illustration(s) / Analogy** of your alternative energy resource to aid in the understanding of what it is and how it works
- A list of sources that were used to obtain your information

Topics

The following energy sources may interest you:

- | | | |
|----------------|-------------------------------|-----------------------|
| Hydrogen | Thermo-Electric (fossil fuel) | Geothermal (steam) |
| Hydro-Electric | Thermo-nuclear (fission) | Tidal and Wave Energy |
| Solar | Nuclear Fusion | |
| Wind | Biomass | |

Due Date:

Alternative Energy Resources Assignment

Name: _____

Topic: _____

Criteria	Level 4 (excellent) 4	Level 3 (good) 3	Level 2 (satisfactory) 2	Level 1 (poor) 0 -1	Mark
How the resource is obtained	<ul style="list-style-type: none"> How the resource is obtained is very clearly stated and thoroughly explained All of the important extraction details are covered 	<ul style="list-style-type: none"> How the resource is obtained is stated and explained Some of the important extraction details are covered 	<ul style="list-style-type: none"> How the resource is obtained is stated Important extraction details are missing or are unclear 	<ul style="list-style-type: none"> How the resource is obtained is unclear No important extraction details are included 	
How the resource is converted	<ul style="list-style-type: none"> How the resource is converted into useable energy is clear and well explained. All essential details of the conversion process were presented 	<ul style="list-style-type: none"> How the resource is converted into useable energy is explained. Some essential details of the conversion process were presented 	<ul style="list-style-type: none"> How the resource is converted into useable energy is identified, but the explanation is unclear Essential details of the conversion process are unclear 	<ul style="list-style-type: none"> The conversion of the resource to useable energy is unclear or missing 	
Where this resource is being used in Ontario and Canada	<ul style="list-style-type: none"> Where in Canada? What % of electricity is produced in Canada using this resource? How much power kW (kilowatts) can be generated? 	<ul style="list-style-type: none"> Most essential details from level 4 are covered 	<ul style="list-style-type: none"> Some essential details from level 4 are covered 	<ul style="list-style-type: none"> Few essential details from level 4 are covered 	
Advantages & Disadvantages	<ul style="list-style-type: none"> Listed 7 or more 	<ul style="list-style-type: none"> Listed 5 	<ul style="list-style-type: none"> Listed 3 	<ul style="list-style-type: none"> Less than 3 	
Uses/Applications	<ul style="list-style-type: none"> Four appropriate uses and or types of things that would operate using this method are stated 	<ul style="list-style-type: none"> Three appropriate uses and or types of things that would operate using this method are stated 	<ul style="list-style-type: none"> Two appropriate uses and or types of things that would operate using this method are stated 	<ul style="list-style-type: none"> One appropriate uses and or types of things that would operate using this method are stated 	

Comments:

Final Mark: _____/20

~Alternative Energy Resources Assignment Sign-Up~

Name	Alternative Resource Type
1.	Nuclear
2.	Wind
3	Biomass
4.	Solar
5.	Tidal Wave
6.	Geothermal
7.	Hydrogen
8.	Hydroelectric
9.	Thermoelectric (fossil fuels)
10.	Wind