

SWITCH Documentary Assignment: Alternative Energy Research (A)

Due Date: Tuesday, April 12, 2022

In this project you will be researching ONE kind of energy from the SWITCH documentary. You can choose to research a non-renewable or a renewable resource from the list below.

Choices of Nonrenewable Resources:	Choices of Renewable Resources:
<ul style="list-style-type: none">- Coal- Oil- Natural Gas- Nuclear	<ul style="list-style-type: none">- Hydroelectric- Geothermal- Solar- Wind

You will summarize your research into a Google Slides presentation. Your presentation must have the following topics and information in it.

Energy Overview (suggested length - 2 slides)

- 1) What is the energy source?
- 2) Where does it come from?
- 3) How is it used to produce energy?

Social Impacts (suggested length: 2- 4 slides, one to two for benefits, one to two for drawbacks)

- 1) What are the benefits of using this energy source for society?
- 2) What are the drawbacks of using this for society?

For both of those questions, think about the following. You don't have to answer all of these but this will give you a place to start

- How easy it is to access the raw materials used to produce the energy
- How efficient it is at producing electricity
- How easy it is to distribute (get from the generator to peoples' houses)
- How much of the resource is left (if non-renewable)
- If it is available everywhere in the world
- What changes people would need to make to their lives to use this energy source

You should have figures (like graphs or charts) and numbers (like amounts) to support your work

Economic Impacts (suggested length: 2- 4 slides, one to two for benefits, one to two for drawbacks)

- 1) What are the benefits of using this energy source on the economy?
- 2) What are the drawbacks of using this energy source on the economy?

For both of those questions, think about the following. You don't have to answer all of these but this will give you a place to start

- How much does it cost to produce the energy?
- How much does it cost to use the energy (cost per kWh)?
- Is there cost involved in switching to this energy source (for unconventional sources)?
- Does using this resource create jobs or help the economy? How?
- Does using this resource hurt the economy? How?
- Will this resource continue to be profitable in the future? Will it become more profitable in the future?
- Will it continue to be a cost effective method of energy generation or will it become a cost effective method of generation?

You should have figures (like graphs or charts) and numbers (like amounts) to support your work

Environmental Impacts (suggested length: 2- 4 slides, one to two for benefits, one to two for drawbacks)

- 1) What are the benefits of using this energy source on the environment?
- 2) What are the drawbacks of using this energy source on the environment?

For both of those questions, think about the following. You don't have to answer all of these but this will give you a place to start

- In what ways does using this energy source harm the environment (people, plants, animals, air, water, etc?)
- In what ways does using this energy source help the environment (people, plants, animals, air, water, etc?)
- Is there anything that can be done to make this resource more environmentally friendly?
- What benefits to the environment would there be if people stopped using this resource?

You should have figures (like graphs or charts) and numbers (like amounts) to support your work

You will be graded based on the rubrics for both outcomes. Be sure to read them as you begin and work through your assignment.

Outcome: Develops skills for Inquiry and Communication

<div> <div>Level</div> <div>Criteria</div> </div>	Excellent 4	Good 3	Basic 2	Not Meeting 1
Communication of scientific information	<p>Information was well organized, well sequenced, and very informative</p> <p>Includes relevant images/data/figures/etc. to support information</p> <p>Student appropriately and thoroughly used relevant scientific vocabulary</p>	<p>Information was somewhat organized, communicated clearly, & fairly informative</p> <p>Includes relevant images/data/figures/etc. to support information</p> <p>Student appropriately used relevant scientific vocabulary</p>	<p>Information lacked some organization, clarity, and detail</p> <p>Includes some relevant images/data/figures/etc. to support information</p> <p>Student used some relevant scientific vocabulary</p>	<p>Communication lacked clarity, organization, and had limited detail</p> <p>Includes few relevant images/data/figures/etc. to support information</p> <p>Student did not use relevant scientific vocabulary</p>

Outcome: Explores scientific events and issues in society and environment.

<div>Level</div> <div>Criteria</div>	<div>Excellent</div> <div>4</div>	<div>Good</div> <div>3</div>	<div>Basic</div> <div>2</div>	<div>Not Meeting</div> <div>1</div>
Explained assigned topic with respect to societal/ cultural, environmental, and economic issues	<p>Response and explanations are complete and very detailed in regards to the environmental, social and economic issues</p> <p>Includes several relevant references</p>	<p>Response and explanations are mostly complete and detailed in regards to the environmental, social and economic issues</p> <p>Includes several relevant references</p>	<p>Response and explanations are partially complete and somewhat detailed in regards to the environmental, social and economic issues</p> <p>Includes some relevant references</p>	<p>Response and explanations are incomplete and provide little details in regards to the environmental, social and economic issues</p> <p>References are missing or of limited relevance</p>