

Name: \_\_\_\_\_

Block: \_\_\_\_\_

## **Second Semester Project (Alternative Energy)**

**DUE DATE:** \_\_\_\_\_

**ALTERNATIVE ENERGY TOPIC ASSIGNED:** \_\_\_\_\_

This project is worth **100 points** and **will be a grade in the assessment category (55% category) of Infinite Campus**. As such, it is extremely important that you turn in all of the components on time!

**Turn in this grading rubric with your project, so that I don't have to make another copy of the rubric to record your grade as I review your project.**

### **ASSIGNMENT:**

**Part 1:** Create a poster about your alternative energy source OR create a power point about your alternative energy source (must bring power point on flash drive to turn in). You will use your poster or power point to teach a small group of your classmates about your alternative energy source during class.

**NOTE:** If you choose to do a power point, you must do one of the following for the group presentation: 1) bring a personal laptop to show your power point to your group, or 2) print off the slides of your power point (one slide per page) so you can flip through the paper slides as you present to your group.

**Part 2:** Create a notes handout for your group to take notes about your presentation. Bring **7 copies** of the notes handout to class on the project due date. (Mrs. Pelphrey can make copies if you turn in the handout PRIOR TO the due date).

As you research information, you will take into account four different perspectives about your energy source. You don't necessarily have to answer every single question listed below (as long as your project meets the requirements of the grading rubric). The questions are provided to get you thinking about what is included in each perspective.

**SCIENTIST:** You are concerned with understanding and explaining how this energy source works.

- In this section, you need to discuss the science behind the energy source. Things to think about include:
  1. What is the source of power or raw materials for this energy source?
  2. How does the system harness and transfer energy?
  3. What are the by-products from this energy source (if any)?

**ENVIRONMENTALIST:** You are concerned with the effects of this technology on nature. You want to explain how the energy source could impact the natural surroundings.

- In this section, you need to discuss the environmental advantages and disadvantages of the energy source. Things to think about include:
  1. Are there any harmful wastes produced by this technology?
  2. Will natural habitats be adversely affected by this technology?
  3. Are there any concerns to public health and safety?

**ECONOMIST:** You are concerned about how much the technology will cost. You want an energy source that is both efficient and cost effective, something that will give a return on the initial investment to put the technology in place.

- In this section, you will discuss the economic advantages and disadvantages of the energy source. Things to think about include:
  1. How does the cost of this energy source compare to the current cost of fossil fuels?
  2. How much money will it cost to start to use this technology?
  3. How much money will be saved by using this technology over the long term?

**HISTORIAN/SOCIOLOGIST:** You are concerned with how this energy source has been used around the world. Humans have always used energy to improve their quality of life. Many different types of energy have been used in different regions and at different times in history.

- In this section, you will discuss real-world examples of how/where the energy source is historically and/or currently used. Things to think about include:
  1. When was the energy source first discovered or invented?
  2. Where in the United States or other countries is the energy source currently used?
  3. Discuss one case study in detail – pick one location where the energy source is being used currently and talk about how it has impacted the area.

<b>GRADING RUBRIC:</b>		<b>Points Possible</b>	<b>Points Earned</b>
<b>Creativity/Neatness:</b> <ul style="list-style-type: none"> <li><b>For Poster:</b> Creativity can include the use of borders, drawings, art work, or other art material glued to poster board (gluing paper with information on it directly onto the poster board with nothing else present on the poster board will not earn the creativity points)</li> <li><b>For Power Point:</b> Creativity can include different backgrounds, animations, transitions, different slide information display formats, and/or different fonts/colors for slide titles vs. information. (If every slide is set up the exact same way and no effort is made to use power point features, such as animations or transitions, you will not earn the points).</li> </ul>		<b>15</b>	
<b>Name of Alternative Energy Source Clearly Displayed</b> <ul style="list-style-type: none"> <li><b>For Poster:</b> In large lettering on poster board</li> <li><b>For Power Point:</b> First Slide of Power Point (Large Font)</li> </ul>		<b>4</b>	
<b>Attention Grabber</b> <ul style="list-style-type: none"> <li>Include an attention grabber to get people interested in your topic (if doing a power point put this on the title page slide; if doing a poster, put this near your poster title)</li> <li>POSSIBLE IDEAS: <ul style="list-style-type: none"> <li>Use a “Did you know” statement (Did you know.....)</li> <li>Provide a statistic about your energy source</li> <li>Use an interesting quote about your energy source</li> <li>Short description of a current issue related to your energy source</li> <li>Provide an interesting fact about your energy source</li> </ul> </li> </ul>		<b>5</b>	
<b>Scientist Perspective</b> <ul style="list-style-type: none"> <li>Discuss the science behind the energy source in detail</li> <li>How does the system harness and transfer energy and produce electricity (if applicable)</li> <li>Use scientific terminology (vocabulary) as part of your detailed description</li> </ul>		<b>10</b>	
<b>Environmentalism Perspective - Advantages</b> <ul style="list-style-type: none"> <li>Describe two major environmental advantages of the energy source (describe, do not list)</li> </ul>		<b>6</b>	
<b>Environmentalism Perspective – Disadvantages</b> <ul style="list-style-type: none"> <li>Describe two major environmental disadvantages of the energy source (describe, do not list)</li> </ul>		<b>6</b>	
<b>Economist Perspective – Advantages</b> <ul style="list-style-type: none"> <li>Describe one economic advantage of the energy source (Describe – do not list)</li> </ul>		<b>3</b>	
<b>Economist Perspective – Disadvantages</b> <ul style="list-style-type: none"> <li>Describe one economic disadvantage of the energy source (Describe – do not list)</li> </ul>		<b>3</b>	
<b>Historian/Sociologist Perspective</b> <ul style="list-style-type: none"> <li>Indicate when the energy source was first discovered or invented</li> <li>Give examples of locations in the world where the energy source is in use today</li> <li>Discuss one case study (real-world example) in detail <ul style="list-style-type: none"> <li>How is the energy source being used?</li> <li>Positive results of the technology related to this specific case study (location)</li> <li>Problems or challenges related to the technology for your specific case study</li> </ul> </li> </ul>		<b>10</b>	
<b>References</b> <ul style="list-style-type: none"> <li>List at least 3 references in a references section</li> <li>Provide the actual URL where you found the information</li> <li>Google, Ask, Yahoo, Wikipedia, etc. are NOT references, they are search engines</li> </ul>		<b>6</b>	
<b>Scientific Diagram/Graph</b> <ul style="list-style-type: none"> <li>Include at least one scientific diagram or graph; NOTE: A photograph/picture is not enough for this part (example: picture of wind farm) – it must be a diagram or graph that has scientific information on it</li> <li>Include a written description that explains what the diagram/graph is showing and how it relates to the topic</li> </ul>		<b>6</b>	
<b>Photograph/Picture</b> <ul style="list-style-type: none"> <li>Include a photograph/picture that represents something related to your energy source</li> <li>Include a caption underneath the photograph/picture that provides information about the photograph/picture</li> </ul>		<b>6</b>	

# One Page Notes Handout for Group Work

Bring **7 copies** of the notes handout to class on the project due date.

(Mrs. Pelphrey can make copies if you turn in the handout **PRIOR TO** the due date).

During class, we will get into small groups and learn about the various alternative energy sources. You will teach your classmates about the alternative energy source you are assigned. You will need to create a one page notes handout that your group members will complete as you tell them about the alternative energy source you are assigned.

Your notes handout can be “fill in the blank” style, “outline” style, “four-square style”, some other type of guided notes (that will provide areas for students to fill in information), or some kind of combination of what is listed above. Parts of the handout must be left blank for group members to take notes as you talk about your alternative energy source.

You will have about 10-12 minutes to teach your topic to the rest of the group, so plan your notes accordingly.

<b>GRADING RUBRIC:</b>	<b>Points Possible</b>	<b>Points Earned</b>
<b>Overall Handout Format:</b> <ul style="list-style-type: none"><li>One Page Notes Handout (<u>7 copies</u> provided); Areas have been left blank for group members to fill in information</li></ul>	<b>6</b>	
<b>Scientist Perspective Section:</b> <ul style="list-style-type: none"><li>Handout includes information about the science behind the energy source; science-related vocabulary is used</li></ul>	<b>2</b>	
<b>Graph/Diagram:</b> <ul style="list-style-type: none"><li>Must include a scientific graph/diagram on the handout (not just a picture/photograph); the graph/diagram must have science information on it</li><li>Include an area you specifically designate and label near the diagram for students to write information about why the diagram is important or what the diagram depicts.</li></ul>	<b>2</b>	
<b>Environmentalism Perspective – Advantages:</b> <ul style="list-style-type: none"><li>Handout includes information about the environmental advantages of the energy source (at least two)</li></ul>	<b>2</b>	
<b>Environmentalism Perspective – Disadvantages:</b> <ul style="list-style-type: none"><li>Handout includes information about the environmental disadvantages of the energy source (at least two)</li></ul>	<b>2</b>	
<b>Economist Perspective – Advantages:</b> <ul style="list-style-type: none"><li>Handout includes information about an economic advantage (at least one) of the energy source</li></ul>	<b>2</b>	
<b>Economist Perspective – Disadvantages:</b> <ul style="list-style-type: none"><li>Handout includes information about an economic disadvantage (at least one) of the energy source</li></ul>	<b>2</b>	
<b>Historian/Sociologist Perspective:</b> <ul style="list-style-type: none"><li>Handout includes notes about your Real-World Example – Provide Details (don't just list location)</li></ul>	<b>2</b>	