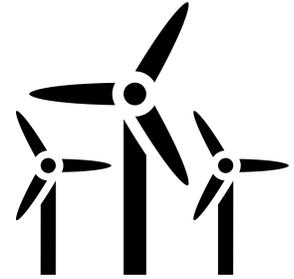


# Alternative Energy Project for Eco Week



Dear Parents:

On Friday, April 12, Mr. Massad’s and Mr. Orenstein’s science classes reviewed specifics of our alternative energy project. We’ve already learned about alternative energies, and now students are ready to begin their projects. For this project, partners will pick two activities to complete. One activity of their project will be due Thursday, April 18. The remainder of their project will be due at the end of class on Tuesday, April 23. After Tuesday, April 23, students will lose 10 points a day. Most of the work for this project will be done in class, but some writing and other work may need to be completed at home.

School-wide, all grade levels are producing and displaying projects for our Eco Week, which is April 22-26. Eco Week is a school-wide celebration of our learning about sustainability and related topics . Fifth graders will display their final projects around our Green Commons area and perhaps other areas of the school for Eco Week.

Because of our Eco Week and knowing we’ll have other grade levels and other visitors touring our commons, please encourage your child to do their best on this project. It’s the end of the year and it’s tempting to lose focus. We really appreciate your reinforcing with students that we want to make a good impression on our visitors through these projects.

Here’s some of the details of this project. More details, like their choices, are on the following pages.

- Students will work with a partner. Both will receive two grades: an individual and group grade.
- Students will have a menu of projects to pick from. They will need to pick at least two activities from the menu. See the Project Menu for options.
- Regardless of the activities picked, students generally will complete these phases:
  1. Research
  2. Writing or product creation, ranging from multimedia projects to videos to posters
  3. Presentation of project to peers

Again, it is intended that this be a short, doable project, but it will take your child’s focus, commitment, and persistence during our crazy end-of-the-year schedule to make that happen. We appreciate your support as we end the year on a strong note.



Please sign, cut off, and return Monday, April 15:

I’ve reviewed this with my family/guardians and understand by responsibilities, incremental due date of Thursday, April 18, and final due date of end of class Tuesday, April 23.

Student Name: \_\_\_\_\_ Period: \_\_\_\_ Student Signature: \_\_\_\_\_

Parent/Guardian Signature: \_\_\_\_\_

# Alternate Energy Sources Project Menu

## Guidelines:

1. Choose two activities from the menu below. The activities must total 10 points. Place a checkmark in each box to show which activities you will complete.
2. Some of the alternative energy sources you should consider researching are **wind, solar, hydroelectric, geothermal, and biofuels.**
3. Presentations need to be created in a way that they can be shared through a class wide gallery walk.

## 2 Points – Inform and Understand

- Research at least three common alternative forms of energy. Which of these are most commonly used in your state? Explain why this may be most common. Present the information in a creative way.
- Think about the different types of alternative forms of energy. Create a crossword puzzle containing the significant vocabulary words and definitions related to these types of energy sources.
- Make a Powerpoint or Prezi presentation for at least three different alternative energy sources. Explain how each energy source works and the advantages and disadvantages for each type.
- Free choice – Prepare a proposal form and submit to your teacher for approval.

## 5 Points – Explain and Analyze

- Your city is thinking about changing from fossil fuels to an alternative form of energy. Which alternative energy source would be best? Why? Justify your choice by including the advantages (pros) and disadvantages (cons) of your choice in your news report. The report should be written from the perspective of a news reporter.
- Make a poster that shows how a nuclear power plant works to create energy. Your poster needs to include words and diagrams in the explanation.
- Choose one form of alternative energy and create a multi-panel (at least three) illustration that shows how the energy source creates energy. Each panel should have a 1 sentence explanation for the illustration.
- Write a persuasive paper to the Austin City Council that explains the BEST alternative energy source for your neighborhood based upon the resources in your area. Be sure and think about costs, space, dangers, and other pros and cons.
- Free choice – Prepare a proposal form and submit to your teacher for approval. This project must analyze the pros and cons of a specific alternative energy source or explain how energy is created with a chosen energy source.

## 8 Points – Evaluate and Create

- Create a demonstration for the class that shows how a hydroelectric plant creates energy.
- Design a working model that shows how wind energy can be converted into electrical energy.
- Free choice – Prepare a proposal form and submit to your teacher for approval. This project must create a model or demonstration of a particular alternative energy source; or it must evaluate a specific alternative energy source for its effectiveness or uses.

**Process Assessment**

Teacher observes the following:

<b>Collaborative Work Skills : Process Assessment</b>				
<b>CATEGORY</b>	<b>Consistently</b>	<b>Occasionally</b>	<b>Often</b>	<b>Struggles with Expectations</b>
<b>Problem-solving</b>	Actively looks for and suggests solutions to problems.	Refines solutions suggested by others.	Does not suggest or refine solutions, but is willing to try out solutions suggested by others.	Does not try to solve problems or help others solve problems. Allows others do the work.
<b>Focus on the task</b>	Consistently stays focused on the task and what needs to be done. Very self-directed.	Focuses on the task and what needs to be done most of the time. Other group members can count on this person.	Focuses on the task and what needs to be done some of the time. Other group members may sometimes remind to keep this person on-task.	Rarely focuses on the task and what needs to be done. Allows others do the work.
<b>Contributions</b>	Routinely provides useful ideas when participating in the group and in classroom discussion. A definite leader who contributes a lot of effort.	Usually provides useful ideas when participating in the group and in classroom discussion. A strong group member who tries hard.	Sometimes provides useful ideas when participating in the group and in classroom discussion. A satisfactory group member who does what is required.	Rarely provides useful ideas when participating in the group and in classroom discussion. May refuse to participate.

**Product Assessment**

Since this lesson has multiple parts, you are encouraged to design your own rubric. Below are useful links to support your use of rubrics in the classroom:

**RubiStar:** <http://rubistar.4teachers.org/>; **Teachnology:** [http://www.teach-nology.com/web\\_tools/rubrics/](http://www.teach-nology.com/web_tools/rubrics/); **Rubrics for Teachers:** <http://www.rubrics4teachers.com/>