

The Eco-Classroom

It's time to start learning more about the environment and what we can do to make a difference.

Task 1 (Two Science Classes) – Building More Background Knowledge (Please note that students will have had some time already to read and discuss aspects of these topics before being introduced to this project.):

Use the Pinterest Page (<http://www.pinterest.com/adunsiger/conservationofenergy/>), classroom resources, and other online materials to find out the answers to these questions:

- 1) How do humans use energy and natural resources? What are the long-term impacts on the environment in doing so?
- 2) What are the effects of various technologies (e.g., aerodynamic design of cars) on energy consumption?

As you read, listen, and watch about these topics, keep track of what you read/heard, what you thought, and any new questions/wonders.

What I Read/Heard	What I Thought	Questions/Wonders

Task 2 (Two Science Classes) – Making A Plan:

Brainstorm a list of different specific areas in our homes, schools, and/or communities where we can help conserve energy.

- 1) What are the specific problems in each of these areas?
- 2) What are some possible solutions for each of these problems?

Everyone will then pick a specific area that interests him/her. You will work in small groups to plan a display area for our "eco-classroom." This area must include the following:

- 1) Visuals that show the issues in these areas.
- 2) Visuals that show specific solutions to each of these issues.
- 3) Information about each of these specific issues and solutions.

Remember that our classroom will become a teachable area, where everyone that enters the room (as well as all people that are currently in the room) can learn about solutions to environmental problems. You need to make this information accessible to everyone.

Task 3 (Two Science Classes) – Creating Our Eco-Classroom:

Use the information from the plan to create your area in the eco-classroom. Remember to include visuals and information to help everyone understand the possible problems and solutions.

Challenge: Make your display as eco-friendly as possible while still being visually appealing and informative.

After completing your eco-classroom display, individually reflect on why you made the design choices that you did.

- 1) How did these choices help you showcase your learning about energy consumption and conservation?
- 2) What will people learn when they look at your display? Be specific.
- 3) How did you ensure that all learners would understand the problems and possible solutions that you showcased? Be specific.
- 4) How did you make your display eco-friendly? Give specific examples.

Rubric For The Eco-Classroom

	Level 1	Level 2	Level 3	Level 4
Knowledge of Content	Demonstrates limited knowledge of how humans use energy and natural resources (and the impact on the environment in doing so) and the effects of various technologies on energy consumption. <u>Identifies few, if any, specific examples related to these Science topics.</u>	Demonstrates some knowledge of how humans use energy and natural resources (and the impact on the environment in doing so) and the effects of various technologies on energy consumption. <u>Identifies some specific examples related to these Science topics.</u>	Demonstrates considerable knowledge of how humans use energy and natural resources (and the impact on the environment in doing so) and the effects of various technologies on energy consumption. <u>Identifies many specific examples related to these Science topics.</u>	Demonstrates thorough knowledge of how humans use energy and natural resources (and the impact on the environment in doing so) and the effects of various technologies on energy consumption. <u>Identifies and explains numerous specific examples related to these Science topics.</u>
Thinking	Rarely uses critical/creative thinking processes, skills, and strategies when deciding on the way to visually show and explain his/her learning in the eco-classroom display.	Sometimes uses critical/creative thinking processes, skills and strategies when deciding on the way to visually show and explain his/her learning in the eco-classroom display.	Usually uses critical/creative thinking processes, skills and strategies when deciding on the way to visually show and explain his/her learning in the eco-classroom display.	Consistently uses critical/creative thinking processes, skills and strategies when deciding on the way to visually show and explain his/her learning in the eco-classroom display.
Communication	Rarely expresses and organizes ideas and information as seen in his/her eco-classroom display. The information is difficult to follow, and provides few, if any, details to explain his/her thinking.	Sometimes expresses and organizes ideas and information as seen in his/her eco-classroom display. Logically organizes some of the information, and provides some details to explain his/her thinking.	Usually expresses and organizes ideas and information as seen in his/her eco-classroom display. Logically organizes most of the information, and provides many details to explain his/her thinking.	Consistently expresses and organizes ideas and information as seen in his/her eco-classroom display. Logically organizes all of the information, and provides numerous details to explain his/her thinking.
Application	Transfers little of what he/she learned about energy conservation into his/her eco-classroom display.	Transfers some of what he/she learned about energy conservation into his/her eco-classroom display.	Transfers much of what he/she learned about energy conservation into his/her eco-classroom display.	Transfers and explains all of what he/she learned about energy conservation into his/her eco-classroom display.