Environmental Science Quarter Project: Eco-friendly Housing

Due date: Thurs Dec 11, 2008 and Fri Dec 12, 2008

For the rest of the quarter you will be working with a group to design a 3D eco-friendly house made out of sustainable or recyclable products. Below are the requirements for this final project.

1. **3D Eco-friendly House**

This 3D model must be built out of recyclable and sustainable materials. All of these products must be listed on the reference sheet with a description of whether they are recyclable or sustainable and why. The house should be creative, yet sturdy. Points will be deducted if the house cannot make the journey from home to school without breaking. There should be NO food/perishable items on your house. Each house must have **12** eco-friendly "renovations" that are designed to save energy, water, or resources. For example, you may install fake grass in the front yard to save on water bills. These changes can be as simple as changing a light bulb or as complex as installing a geothermal heating system. All of these must be labeled on the 3D model and be on the reference sheet. Have fun with these "renovations." Be creative. There is plenty of information on the web. All group members' names must be clearly visible on the model.

2. **Reference Sheet**

In addition to the 3D model, you will create a reference sheet. This sheet must contain the below listed parts. This sheet should have *one inch margins, with Times New Roman font, size 12*. Remember that all group members' names must be on this sheet as well.

A. A list of all materials that you used on your model. Be specific. For example, do not just put down "wood." What kind of wood is it? Where did you get it? Certain woods are sustainable and others are not. For each product, you must also list whether it is sustainable or recyclable and why.
B. A list of the 12 "renovations" that are labeled on your 3D model. Look on the web for ideas. You must explain what kind of product it is and where it is located.
C. An explanation as to why those "renovations" help to save the environment. Do they save water? Do they reuse and recycle industrial products so they don't end up in a landfill? Be detailed and specific.
D. A list of vendors that will sell each product and its approximate cost. For example, if you are installing fake grass, you need an estimate as to how much it will cost per square yard. You will NOT need to know how much it will cost to do the entire yard (since you don't know the size of the yard). Where are these vendors located? Can you buy them here in South Carolina?
E. A works cited page. Attached is a guideline for how to write citations in MLA format. These do not include all of the citations, so you may need to go online to find the one that you need. Remember that all citations need to be in alphabetical order! Include this on a separate sheet of paper and staple it to your reference sheet. This reference sheet should contain all of the sources from all 3 components including the presentation portion.

3. **Presentation**

The final portion of this product is to showcase your work. You will create a twenty to twenty-five minute presentation to show the class your work. Create a PowerPoint presentation or a poster explaining your choice of renovations and how much energy/water/resources you can save with your changes. Explain to the class why you chose such renovations. Were you on a tight budget? Where you trying to create the most eco-friendly house on the market? Did you specialize in reusing industrial materials? In this presentation you will delve into what eco-friendly renovations can do for the environment. What are the advantages and disadvantages of doing such renovations? Be creative. Pull in the audience's attention. Games or short videos are a great idea. Remember that all group members must talk during this presentation to the class. If you need a computer or any other electronic device, please tell me beforehand, so I may arrange for it.

The grading for this project is listed below. You will be graded on all three aspects of the project as well as your participation within your group. Attached are your personal grading rubric and your group member grading rubric. You MUST hand these in to me on the day of your presentation. This project is about saving the environment, so if we can save some trees that would be fantastic. Remember to hand in these sheets or points WILL be deducted. All three components and the grading rubrics are due on the day of your presentation. Presentations will occur on **Thurs Dec 11, 2008** and **Fri Dec 12, 2008**.

Grading Rubric

3D model		
	Sustainable/recyclable materials used	/5
	Creative and sturdy	/5
	12 renovations (label, location)	/12
	Name on project	/5
Reference Sheet		
	List of materials (sustainable/recyclable and why)	/5
	12 renovations (present, kind)	/12
	Renovations explanations	/12
	Prices (vendors and cost)	/12
	Works Cited	/5
	Name on Project	/5
Presentation		
	Creative/Visually Appealing	/5
	All members speak	/5
	Explanation of renovations	/10
Participation within the group		/10
	TOTAL	/108

Group Member Participation

Write in the names of your group members. Do NOT include yourself. If you believe they deserve to have points deducted from their grades, please list how many points should be deducted and why you believe this. Be specific.

1. _____ deserves _____ points deducted

from their grade because_____

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2. _____ deserves _____ points deducted

from their grade because_____

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3. _____ deserves _____ points deducted

from their grade because_____

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