Click to view: Day 1-2 Day 3-4 Day 5-6 Day 7-8 Day 9-10 Day 11 Journal

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## Day 1-2: Read & Complete the Following Information

We have decided to accept proposals to help improve a school within the boundaries of South America by supplying them with renewable resources that would improve their existing learning conditions. You will need to first break up into groups of 4. Keep in mind that each of you will have a different role in which you complete this project:

Project Leader:

(Time keeper, makes sure tasks are being completed as scheduled, all members have everything they need to complete their tasks, and keeps everyone in the group working cooperatively with each other; is also in charge of delivering the presentation by covering information listed in the permit application)

What does "Good Teamwork" look like?

Secretary:

*(Records what has been accomplished on a daily basis, see location below - journal format, emails team members/Mr. Poole project permit, progress, details, & journal)* (Records need to be relayled in both email & Dropbox on a daily basis)

Sketch Artist/Designer:

(Draws detailed plans & blueprints of project for approval and construction; emails plans to secretary who emails to all group members, will also be responsible for working with the secretary to compile setup instructions & problem solving suggestions to various issues that may arise)

Fabricator:

(Builds a model of what this device will look like, and will provide description to the secretary of how device will function and solve the current school dilemma)

***EVERYONE: required to participate in the research process to gather information about the local area, types of renewable resources to be used, and gathering Intel for what the design should look like***

TASK - Once you have decided on members and roles, please have the secretary make note of that & all daily activities on this form, in Pages or Google Docs, and email all members & cc your teacher.

Your group's mission over the next several days will be to submit a permit requiring specific information, allowing us access to the worksite, as well as to provide the local jurisdiction with a description of your proposal. You will need to keep in mind the following: what is the greatest need of the area, what the device will power (why you chose what you did), materials to be used, what the costs will be, & the time involved to get it up and running. Continued maintenance will also be a concern, so you will need to supply a training manual, in both English & in their native language, with installation and troubleshooting

methods if the device would ever fail.

TASK – 1st Watch this video, then discuss with your group and brainstorm ideas of what you'd like to make. Below are some ideas to get your creative ideas flowing, but your group is highly encouraged to seek out other references. Forms of renewable energy include: Hydroelectricity, Bioenergy, & Geothermal Energy. You will want to research them all to see what the best fit for your project is. Consider the local resources, as they will need to be utilized if repairs would be necessary. Remember to fulfill your job descriptions each day.

1. Making a PVC Windmill
2. Student Windmill
3. Water Pump & Sand Filter
4. Pumps In Rural Areas
5. Student Solar Energy
6. Life Straw
7. Solar Cooker
8. Hippo Water Roller
9. Wind Belt
10. Hollow Flashlight
11. Pot in Pot Refrigerator
12. Green House

**Brainstorming Notes** -- Make sure to list all viable ideas & reasons why each should be used.

Idea 1:

- Reason why your project is needed:

Idea 2:

- Reason why your project is needed:

Idea 3:

- Reason why your project is needed:

## Day 3-4: Fill out Contact Information & Project Overview

# South American General Construction Permit

Application Submission Date Wednesday, February 26, 2014

**CONTACT INFORMATION** (To be filled out by the project leader) -- 8 pts

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Organization (School) Name:

Address:

Phone Number:

All Group Members School Emails:

**PROJECT OVERVIEW**

- **Part 1: Desired site (town / school) --**
  - Longitude/latitude coordinates (Hint….use Google Earth):
  - Name:
  - Population:
  - Languages spoken:
  - Country's Birth Rate:
  - Country's Death Rate:
  - Country's Literacy Rate
  - Country's Economics:
    - GDP (Gross Domestic Product)
    - Type of Currency
    - Unemployment Rate
  - Climate:
    - Average Rainfall
    - Seasonal Months
  - Government:
  - Crime Rate:
- **Part 2: Description of problem:**
  - List a specific example of that problem:
  - Proposed solution (what renewable resource will be implemented):
    - How will the device be used?
    - How will that device fix the problem?
    - How the project will correct the current situation:
- Date the team will begin construction (Today's Date):
- Date the team will finalize construction (Presentation Date):

## Day 5-6: Planning & Design Phase (project model can only be 2ft by 2ft or less)

Neatly drawn with color

Labels & dimensions clearly defined

Your group will use the proposed problem and solution mentioned above, in junction with the Sketch Artist/Designer program, to draw up what the model will look like. This will need to be backed up in

Emailed to group members daily, until there are no more changes.

Keep in mind you will have to use your own supplies to complete this project. Please work closely with your group members to compile available resources. Also remember, this project shouldn't cost much to build, so be creative.

## Day 7-8: Discuss, Research, & List Local Resources

**LOCAL RESOURCES NEEDED** (Remember all resources necessary to build this device must be available locally, you may need to update as you build it. Make sure you put specific details such as length, width, etc.

List here (with quantities):

| QUANTITY | ITEM DESCRIPTION (Tools & Supplies Needed For Construction) |
|---|---|
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## Day 9-10: Construction (project model can only be 2ft by 2ft or less)

Your group will need to use the resources page, & the sketch/design that you have completed to begin the construction of your model & start your Presentation (Keynote or PowerPoint). The Presentation must have the information listed on this document. As for the physical construction, the Fabricator is responsible for this portion, although the expectation is that all group members will be helping prepare materials for the Fabricator to construct.

Step By Step Instructions (to build in English)

| | |
|---|---|
| STEP 1 | |
| STEP 2 | |
| STEP 3 | |
| STEP 4 | |
| STEP 5 | |
| STEP 6 | |
| STEP 7 | |
| STEP 8 | |
| STEP 9 | |
| STEP 10 | |

Step By Step Instructions (to build in Native Language)

| | |
|---|---|
| STEP 1 | |
| STEP 2 | |
| STEP 3 | |
| STEP 4 | |
| STEP 5 | |
| STEP 6 | |

| | |
|---|---|
| STEP 7 | |
| STEP 8 | |
| STEP 9 | |
| STEP 10 | |

Construction Value (Must be working / functional: either demonstrate in class or videotaped from home)

## Day 11: Presentation of Model & Evaluation / Conclusion

Group members will show their Presentation (Keynote or PowerPoint), bring up their model in front of the class (describe in detail)

- How will you promote your product (this will be your presentation for your grade)?
    - Commercial Ideas
        - Ex. A jingle…song like "J G Wetworth 877 CASH NOW"
        - Trailer
        - Green Screen iMovie
        - Podcast
        - Keynote
        - Google Presentation
        - Animoto
    - Information to Include
        - Names of Group Members & Roles
        - Contact information
        - Targeted Audience
            - Location
        - Description of Your Product
            - Example of why your device is needed.
            - Picture of the Design
            - Resources needed to build device.
            - Construction steps (English only)
            - How will the device be used?
            - How the project will correct the current situation:

## Group Feedback

- How did your group work together?
- What could your group do differently if given the chance?
- What do you feel are other things that we take for granted here in the US that other countries

may not have?

- What did you feel was the most important thing that you learned from this project was?
- Do you feel your group has a higher chance of success of your project actually working vs. all the other groups in this class? If so, why or why not?
- What would you suggest that could improve this for next year?

# Journal Notes

EXAMPLE: July 8, 2013 then what you did. (Put each day on a new line)

Must have a minimum of 5 entries -- 50 pts

| DATE | WHAT GROUP WORKED ON |
|---|---|
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