

Project Prometheus **11th grade - Second Semester**

Project Description:

Students will engage in a dynamic group driven project exploring the many facets of sustainable energy resources. Using their acquired knowledge from extensive research, students will advocate an alternate energy source that will mitigate our dependency on fossil fuel resources. ***Project Prometheus*** will require students to exercise critical thinking skills, utilize persuasion tactics, and synthesize accumulated data to lobby for their chosen energy resource.

Essential Question:

What is the best pathway to a sustainable energy future?

Project Components

1. Energy Inventory (100 pts) [ND] – CP/Math

Each member of the group will document their individual household energy use for a two-week period. This will include electrical and transportation usage. At the end of the two weeks, students will quantify their individual findings and identify ways to conserve energy as well as estimate how much energy those techniques would save. The information and conclusions must be presented to the class via a formal PowerPoint presentation.

2. Fossil Fuel Forecast (100 pts) [D] – CP/Math

Students will create mathematical models to forecast the depletion of existing fossil fuel resources. These resources include oil, coal, and natural gas. This component requires a formal written report that will include graphs and equations representing the mathematical model, and a prediction of when we reach 50% of remaining fossil fuel resources. This component also requires an informative narrative that explores the accuracy of the assumptions made by the experts involved in obtaining the data.

3. Energy Myth-busting (100 pts) [D] – CP/Chemistry

Students will create a video documentary in the style of myth-busters lasting 10-15 minutes. The video will be an account of the step by step attempts to prove or “bust” one energy myth of their choice. The documentary will be accompanied by a lab report. The report will include: an introduction, a hypothesis, materials list, procedure, data and conclusion.

4. Energy Media Kit (100 pts) [D] – CP/English

Students will develop an educational packet that informs and attempts to persuade the general public of the benefits and advantages their assigned energy resource can provide. The packet may include but is not limited to a pitch letter, press release, brochure, FAQ sheet detailing how the energy source is extracted, and/or 30-second PSA (Public Service Announcement). Students will also create an environmental poster that attempts at least one identifiable persuasive appeal.

5. Political Reasoning and Debate (100 pts) [ND] – CP/U.S. History

Students will research why their chosen energy resource is not currently being utilized as our primary energy resource. They will explore the political and economic climate and determine why alternative forms of energy are not being aggressively pursued. Findings will be summarized in a 1000-word abstract. Students will then defend the benefits of their energy resource in a formal debate while preparing sufficient rebuttals against their assigned opponents.

6. Energy Summit (100 pts) [ND] – IP

The project will culminate in a two-hour Energy Summit that will summarize and highlight the students’ research and conclusions concerning their assigned energy resources. This component requires a booth that will include interactive media elements and all other artifacts from previous components.

Project Prometheus Checklist

Group: _____

House: _____

Due Date	In order to be eligible for an AE assessment, you must complete ALL of the following specifications listed below ON TIME . [100 points possible]
JANUARY	
01/06 [F]	<ul style="list-style-type: none"> Intro Project Prometheus Create groups
01/09 [M]	<ul style="list-style-type: none"> Intro Component #1 (in Math)
01/13 [F]	<ul style="list-style-type: none"> House Activity TBA
01/23 [M]	<ul style="list-style-type: none"> Component #1 – Energy Inventory due (1st block) Intro Component #2 (in Math)
01/27 [F]	<ul style="list-style-type: none"> House Activity TBA
FEBRUARY	
02/03 [F]	<ul style="list-style-type: none"> House Activity TBA
02/06 [M]	<ul style="list-style-type: none"> Component #2 – Fossil Fuel Forecast due (1st block)
week of 02/06	<ul style="list-style-type: none"> Intro Component #3 (in Chemistry) Topic approval (in Chemistry)
02/10 [F]	<ul style="list-style-type: none"> Energy Myth Hypothesis/Procedure/Materials check
MARCH	
03/02 [F]	<ul style="list-style-type: none"> 1st mini assessment
03/05 [M]	<ul style="list-style-type: none"> Component #3 – Energy Mythbusters due (in Chemistry)
week of 03/05	<ul style="list-style-type: none"> Intro Component #4 (in English) Commit to target audience and demographic
03/09 [F]	<ul style="list-style-type: none"> Mythbusters viewing
week of 03/12	<ul style="list-style-type: none"> TOC, pitch letter, press release, FAQ sheet due
03/16 [F]	<ul style="list-style-type: none"> House Activity TBA
week of 03/19	<ul style="list-style-type: none"> Brochure and poster due
03/23 [F]	<ul style="list-style-type: none"> House Activity TBA
03/26 [M]	<ul style="list-style-type: none"> Component #4– Energy Media Kit due (in English)
03/30 [F]	<ul style="list-style-type: none"> 2nd mini assessment
APRIL	
04/09 [M]	<ul style="list-style-type: none"> Intro Component #5 (in History)
04/12 [R] through 04/13 [F]	<ul style="list-style-type: none"> Practice debates
04/13 [F]	<ul style="list-style-type: none"> House Activity TBA
04/20 [F]	<ul style="list-style-type: none"> “Points For” check (in House) Reveal debate opponents House Activity TBA
04/27 [F]	<ul style="list-style-type: none"> “Points Against” check (in House) House Activity TBA
MAY	
05/02 [W] through 05/04 [F]	<ul style="list-style-type: none"> Component #5 – Political Reasoning and Debate
05/04 [F]	<ul style="list-style-type: none"> Exit survey
05/10 [R]	<ul style="list-style-type: none"> Component #6 – Energy Summit

Component #3 - Energy Mythbusters

For 'P' consideration, the final report MUST include a(n):

- Introduction detailing a summary of the problem and the purpose of the experiment.
- Materials list
- Procedure of actual experiment that is detailed (step-by-step).
- Data that is presented in an effective medium and is easily understood by the reader.
- Conclusion that is insightful and considers possible sources of error.
- Documentary video is between 10 – 15 minutes.

	NC	CR	AP	P	Score
Hypothesis	Concern with 3 or major problems with one: Specific statement Clear position Testable	Concern with 2 or major problems with one: Specific statement Clear position Testable	Concern with one: Specific statement Clear position Testable	Specific statement Clear position Testable	
Experimental Procedure	Methodical Quantifiable data Reproducible	Methodical Quantifiable data Reproducible	Methodical Quantifiable data Reproducible	Methodical Quantifiable data Reproducible	
Conclusion	Logical Insightful interpretation of data Convincing	Logical Insightful interpretation of data Convincing	Logical Insightful interpretation of data Convincing	Logical Insightful interpretation of data Convincing	
Documentary	Technical detail Depth of content/scientific explanation Completeness	Technical detail Depth of content/scientific explanation Completeness	Technical detail Depth of content/scientific explanation Completeness	Technical detail Depth of content/scientific explanation Completeness	

AE = Above and Beyond the Proficient Status

Component #4 - Energy Media Kit

For 'P' consideration, the final kit **MUST** include a(n):

1. Table of Contents, Pitch Letter, Press Release, FAQ Sheet, Brochure, Backgrounder
2. Propaganda Poster
3. Identified target audience and demo

	NC	CR	AP	P	Score
Content of Media Kit	<p>Concern with 3 or major problems with one:</p> <p>Correctness of format</p> <p>Informative</p> <p>Identity</p>	<p>Concern with 2 or major problems with one:</p> <p>Correctness of format</p> <p>Informative</p> <p>Identity</p>	<p>Concern with one:</p> <p>Correctness of format</p> <p>Informative</p> <p>Identity</p>	<p>Correctness of format</p> <p>Informative</p> <p>Identity</p>	
Aesthetic of Media Kit	<p>Creativity</p> <p>Professionalism</p> <p>Design</p>	<p>Creativity</p> <p>Professionalism</p> <p>Design</p>	<p>Creativity</p> <p>Professionalism</p> <p>Design</p>	<p>Creativity</p> <p>Professionalism</p> <p>Design</p>	
Persuasiveness of Media Kit	<p>Appropriateness to target audience</p> <p>Evidence of persuasive appeal</p> <p>Ability to convince</p>	<p>Appropriateness to target audience</p> <p>Evidence of persuasive appeal</p> <p>Ability to convince</p>	<p>Appropriateness to target audience</p> <p>Evidence of persuasive appeal</p> <p>Ability to convince</p>	<p>Appropriateness to target audience</p> <p>Evidence of persuasive appeal</p> <p>Ability to convince</p>	
Propaganda Poster	<p>Clarity and/or effectiveness of appeal</p> <p>Originality</p> <p>Aesthetic</p>	<p>Clarity and/or effectiveness of appeal</p> <p>Originality</p> <p>Aesthetic</p>	<p>Clarity and/or effectiveness of appeal</p> <p>Originality</p> <p>Aesthetic</p>	<p>Clarity and/or effectiveness of appeal</p> <p>Originality</p> <p>Aesthetic</p>	

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