



NAME

Don't Waste Water: Preserving the Great Lakes

DESCRIPTION

The Earth's climate and ecosystems are changing quickly due to the way humans are using resources, causing havoc for plants, animals and other organisms. However, none of us would like to go back to a time when people did not have access to lightbulbs, flushing toilets, or smartphones. In this seminar, we will measure the amount of energy and water being used by the people in your own home and design an experiment to reduce the use of those resources. Then, we will present the findings to the class and beyond. We will also investigate other forms of human impact on the environment.

DRIVING QUESTION

How is it possible to preserve the energy and water resources of the present for future generations?

FINAL PROJECT OPTIONS *(Students can submit their own final project proposal.)*

<p>Expository projects: Describe and explain the research performed and its results.</p> <p>Write a research report to be presented in front of the class, at a school symposium, or a community STEM expo.</p> <ul style="list-style-type: none"> ● Lab Report Rubric ● Oral Presentation Rubric ● Symposium Style Presentation 	<p>Persuasive projects: Apply the collected data and analyze it to support a claim/conclusion.</p> <p>Write a letter to a school leader or parent arguing for the adoption of a specific efficiency action or behavior.</p> <p>Write a position paper.</p> <p>Prompt: Consider the strain of population growth on natural</p>	<p>Entrepreneurship Project: Students offer to perform efficiency audits in businesses, then track the businesses' utility consumption to demonstrate the savings created by the efficiency technology or behavior change.</p>
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<ul style="list-style-type: none"> • Create a research report in the form of a video to be presented in front of the class, at a school symposium, or a community STEM expo. 	<p>resources. Strain on natural resources (water, electricity, and natural gas) is expected to grow as the human population increases dramatically in the coming decades. Is it possible for people to significantly reduce how much water, electricity, and natural gas their home's use? Is it realistic to expect people to use water, electricity, and natural gas more efficiently at home? Explain.</p>	
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ACADEMIC MASTERY CREDIT PATHWAYS

Earth Science, Technical Writing, Statistics and Probability

MILESTONES *(Subject to change, see myLC for assigned tasks in real time.)*

Week	Milestone
1	
2	Collect Baseline Data -Students have baseline data for their home & the school.
3	Pick Experiment - Students decide which variable to impact in their home experiment and why. Design Experiment -Students design an experiment to conduct on their home to help reduce water, gas, electricity use.
4	Measure Experiment Effects (Collect 7 more days of data)
5	Measure Experiment Effects, Add additional Variable to Experiment (collect 7 more days of data)
6	Illustrate & Interpret Collected Data Complete data collection, create graphs and presentation
7	Generalize Conclusions & Share Results

