

Homework-Energy Sources Research

Purpose

Although most of the energy consumed in the United States comes from fossil fuel sources, there are many other potential sources of energy available. In all cases, there are pros and cons to our use of these sources. Some of the energy sources are limited by their availability or environmental impact; others need technological improvements before they can become widely used. For scientists and engineers, research is the best way to learn about unknown topics.

This assignment calls you to examine information about energy sources and how those sources are used to produce electrical energy. You will begin to become an expert on one source of energy and report your findings back to the class. Then, you will meet with a group to discuss the various pros and cons that affect our use of different energy sources.

Procedure

1. You will choose or be assigned a source of energy to research
2. Use the provided information packet or alternate resources to find the answers to the questions about your energy sources
3. After this portion of the assignment is completed you will be assigned to a group to fill in the energy sources chart.
4. Once you have filled in the chart, answer the two discussion questions.

Sources

Biomass
Fossil Fuels
Geothermal
Hydropower
Uranium
Solar
Wind

Research Questions

Energy Source: _____

1. What is your energy source? Where can it be found?
2. How do we obtain this energy? (How does it work?)
3. Are there different types or uses of this source? If yes, what are the differences?
4. What are the environmental impacts of your energy source?
5. What are the economic impacts of your energy source? How much does it cost per kWh?
6. What countries frequently use this source of energy? What percentage is it used in the United States?
7. What are the most common applications for this energy source? (at farms, in industry etc) Could this source be used in a family home?

Source Chart

While listening to the students in your group present their information, list some “pros” and “cons” of using that energy source to solve the energy problem.

Energy Source	“pros”	“cons”
Biomass		
Fossil Fuels		
Geothermal		
Hydropower		
Uranium		
Solar		

Discussion Questions

1. If you had to choose an energy system to tell your community about based on the listed pros and cons, which system would you choose? Why?

2. Why do we as a nation depend so much on fossil fuels? What do you think we could do to reduce this dependence on fossil fuels?