TYPES OF ENERGY SOURCES

DIRECTIONS: While 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. In this activity, you will examine information about energy sources and how those sources are used to produce electrical energy.

Choose one of the following energy sources to research:
Biomass  Fossil Fuels  Geothermal  Hydropower
Uranium             Solar               Wind

Use the internet to research the following questions:

Energy Source: ________________________________

1. Where can your energy source 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?

____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
Now, get in a group with students who researched other energy sources. (Or your teacher may assign groups.) You will each present your research on your energy source. Fill out the chart below as students present their findings.

<table>
<thead>
<tr>
<th>Energy Source</th>
<th>“pros”</th>
<th>“cons”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomass</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fossil Fuels</td>
<td></td>
<td></td>
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<tr>
<td>Geothermal</td>
<td></td>
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<tr>
<td>Hydropower</td>
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<tr>
<td>Uranium</td>
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<tr>
<td>Solar</td>
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</tbody>
</table>

After you have filled out the chart, answer the following 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?
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________