Warm-Ups: Week 6
Mon. – 5/18
Tue. – 5/19 **Computer Lab**
Wed. – 5/20
Thur. – 5/21
Fri. – 5/22 **Notebook Check**

Warm-Up
May 18, 2015
Today you will need your pencil and notebook. Desktop Tomorrow!
Computer Lab tomorrow. Notebook Check on Friday.

How do we measure energy?
- There is a unit for that…
- In fact there are several…
- Let’s start with Q

Q
- Definition
  - Quad. Also known as quadrillion British thermal units.
- Example
  - One quad is equivalent to lighting \(1 \times 10^{15}\) matches

1. Convert the quads into percentages. Then fill in the pie chart appropriately to display the distribution of energy production from renewable and nonrenewable sources in the United States.

<table>
<thead>
<tr>
<th>Source</th>
<th>Quad</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>PETROLEUM</td>
<td>38.2 Q</td>
<td>_____%</td>
</tr>
<tr>
<td>NATURAL GAS</td>
<td>23.0 Q</td>
<td>_____%</td>
</tr>
<tr>
<td>COAL</td>
<td>22.5 Q</td>
<td>_____%</td>
</tr>
<tr>
<td>URANIUM</td>
<td>8.2 Q</td>
<td>_____%</td>
</tr>
<tr>
<td>BIOMASS</td>
<td>2.6 Q</td>
<td>_____%</td>
</tr>
<tr>
<td>HYDROPOWER</td>
<td>2.7 Q</td>
<td>_____%</td>
</tr>
<tr>
<td>PROPANE</td>
<td>1.9 Q</td>
<td>_____%</td>
</tr>
<tr>
<td>GEOTHERMAL, SOLAR, WIND AND OTHER</td>
<td>0.4 Q</td>
<td>_____%</td>
</tr>
</tbody>
</table>

Pie Chart Distribution of Energy Production
Think on this…

- Americans constitute 5% of the world's population but consume 24% of the world's energy.
- On average, one American consumes as much energy as
  - 2 Japanese
  - 6 Mexicans
  - 13 Chinese
  - 31 Indians
  - 128 Bangladeshis
  - 307 Tanzanians
  - 370 Ethiopians

Think on this…

- The population is projected to increase by nearly 130 million people - the equivalent of adding another four states the size of California - by the year 2050.
- Forty percent of births are unintended.
- Americans throw out 200,000 tons of edible food daily.
- The average American generates 52 tons of garbage by age 75.
- The average individual daily consumption of water is 159 gallons, while more than half the world's population lives on 25 gallons.
- Every day an estimated nine square miles of rural land are lost to development.
- There are more shopping malls than high schools.

Activity

- Energy in the World! Please turn-in

- Days to Go!

- Countdown Folder!

- Today: Earthquakes & Volcanoes

- Pages 21 - 22