Investigating Coal Production and Consumption with My World GIS Investigation Sheet

Coal comes from the energy stored by land plants from swamps that lived hundreds of millions of years ago. In this activity, you will use My World GIS to investigate patterns of coal production and consumption. You will

1. Examine locations of coal fields in the USA.
2. Examine countries with coal reserves.
4. Analyze relationships between country populations and coal consumption.

Read all instructions on your handout and answer each question.

1. What areas of the United States contain coal fields? ___________________________________
   ___________________________________
   ___________________________________
   ___________________________________
   ___________________________________

2. Use the Get Information tool to get the names of 5 different coal fields.
   i. __________________________
   ii. __________________________
   iii. __________________________
   iv. __________________________
   v. __________________________

Helpful hint: Click the Total (Billions of Tonnes) column or the Share (%) column twice to sort it in descending order.

NOTE: 1 tonne = 1000kg = 2204.6 pounds

Top 5 Countries with Coal Reserves Data Chart

<table>
<thead>
<tr>
<th>Country Name</th>
<th>Total (Billions of Tonnes)</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 2008 Coal Production Data Chart

<table>
<thead>
<tr>
<th>Country</th>
<th>Amount of Coal Produced (Thousand Short Tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
</tbody>
</table>

### 1980 Coal Production Data Chart

<table>
<thead>
<tr>
<th>Country</th>
<th>Amount of Coal Produced (Thousand Short Tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
</tbody>
</table>

3. Which 2 countries were among the top five coal producers in **both** 1980 and 2008?

___________________________________________________________________________________

4. Which 3 countries **increased** their coal consumption the most between 1980 and 2008?
   
   i. ______________________________
   
   ii. ______________________________
   
   iii. ______________________________

5. Which 3 countries **reduced** their coal consumption the most between 1980 and 2008?

   i. ______________________________
   
   ii. ______________________________
   
   iii. ______________________________
6. Which 3 countries’ populations increased the most between 1980 and 2008?  
**Helpful hint:** Click the Population Difference column twice to sort it in descending order.  
   i. __________________________  
   ii. __________________________  
   iii. __________________________  

7. Which are the top 3 countries with the highest population in 2008?  
**Helpful hint:** Click on the Pop. 2008 column twice to sort it in descending order.  
   i. __________________________  
   ii. __________________________  
   iii. __________________________  

8. Which countries are both high producers and high consumers of coal?  
**Helpful hint:** Look at your answers in the 2008 Coal Production Data Chart and your answers to question 4.  
______________________________  
______________________________  

9. What pattern exists between coal consumption and population?  
**Helpful hint:** Look at your answers to questions 4 and 7.  
______________________________  
______________________________