Periodic Table

Procedure
1. Read the data table showing the physical properties of metals and nonmetals.

<table>
<thead>
<tr>
<th>Group</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metals</td>
<td>usually shiny; can be formed into sheets or wire; can be bent; good</td>
</tr>
<tr>
<td></td>
<td>conductors of heat; usually solid at room temperature</td>
</tr>
<tr>
<td>Nonmetals</td>
<td>usually dull; not easily shaped; brittle; poor conductors of heat;</td>
</tr>
<tr>
<td></td>
<td>solid, liquid, or gas at room temperature</td>
</tr>
</tbody>
</table>

2. Record Data Work with a partner. Use a hand lens to observe the color, shape, and texture of a copper wire. With the wire inside the sealed bag, try to bend the wire. Record your observations.

3. Classify Use the data table and your observations to classify the copper as a metal or nonmetal.
4. **Experiment** Repeats Steps 2 and 3 for the aluminum foil, sulfur, and charcoal, which is mostly carbon. Classify each substance as a metal or nonmetal.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Conclusion

1. **Compare** Which substances did you classify as metals? What data did you use to reach your conclusion?

________________________________________________________________________

________________________________________________________________________

2. **Analyze Data** Look at the periodic table on pages 240–241. Were your classifications correct?

________________________________________________________________________

Ask Questions

Write a question about other ways to classify materials. Then look in books and on the Internet to answer your question. **Classify** two other materials using this information.