**Student Self-Assessment Questions for Unit 1**
These questions are included in the online reading in Student Materials

**Question 1** Match the following mineral resource with the product that contains it.

<table>
<thead>
<tr>
<th>Mineral resources</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. copper (element from mineral bornite)</td>
<td>A. car batteries</td>
</tr>
<tr>
<td>2. diamond (mineral with chemical formula C)</td>
<td>B. cement</td>
</tr>
<tr>
<td>3. graphite (mineral with chemical formula C)</td>
<td>C. drill bits (for drilling into rock)</td>
</tr>
<tr>
<td>4. gravel (rock fragments)</td>
<td>D. electrical wires</td>
</tr>
<tr>
<td>5. iron (element from mineral magnetite)</td>
<td>E. glass</td>
</tr>
<tr>
<td>6. lead (element from mineral galena)</td>
<td>F. mixed with cement to make concrete</td>
</tr>
<tr>
<td>7. limestone (rock containing the mineral calcite, CaCO₃)</td>
<td>G. pencil lead</td>
</tr>
<tr>
<td>8. quartz sand (quartz is a mineral with formula SiO₂)</td>
<td>H. steel</td>
</tr>
</tbody>
</table>

**Question 2** What will make a mineral useful as a drill bit?
   a. The mineral’s hardness
   b. The mineral’s color
   c. The mineral’s electrical conductivity
   d. The mineral’s solubility

**Question 3** What will make a mineral useful as an electrical wire?
   a. The mineral’s hardness
   b. The mineral’s color
   c. The mineral’s electrical conductivity
   d. The mineral’s solubility

**Question 4** Why is plastic not a mineral?
   a. It is not solid
   b. It is not chemically homogeneous
   c. It is not crystalline
   d. It is not natural

**Question 5** Which elements are in the list of the eight most abundant elements in Earth’s crust?
   a. Oxygen
   b. Carbon
   c. Silicon
   d. Phosphorus
   e. Iron
   f. Aluminum
   g. Gold
   h. Calcium
   i. Nitrogen
   j. Sodium
   k. Manganese
   l. Magnesium
   m. Zinc
   n. Lead

**Question 6** The mineral quartz is made of the elements Silicon and Oxygen. Do you think quartz is a common mineral? Why or why not?
**Question 7**  True/False. Plastic is a rock.

**Question 8**  To make an ice cube, you fill a tray with liquid water, which then freezes, making a coherent solid (a rock). Which rock type would the ice cube be?
   a. Metamorphic  
   b. Igneous  
   c. Sedimentary

**Question 9**  How is world population changing?
   a. World population is increasing  
   b. World population is decreasing  
   c. World population is staying the same

**Question 10**  As world population changes, what will happen to the global demand for mineral resources?

**Question 11**  Which is true about U.S. consumption of mineral resources?
   a. U.S. consumption is very high and increasing.  
   b. U.S. consumption amounts have leveled off because our population growth is little.  
   c. U.S. consumption amounts are declining because we recycle so much.

**Question 12**  As countries like India and China become more economically developed, what will happen to total amounts of mineral resource consumption (and amounts of mining) globally?