1. Earth’s major systems are
   • the geosphere (solid and molten rock, soil, and sediments)
   • the hydrosphere (water)
   • the atmosphere (air)
   • the biosphere (living things, including humans)

a. Earth’s major systems interact in many ways to change Earth’s surface. Describe two examples of changes caused by the interaction of the geosphere and one of the other systems listed above.

b. Describe two examples of how human activity has affected Earth’s systems and how people are trying to reduce the effects of those activities.
2. Student A says that, “Earth has changed over a very long period of time.” Student B asks, “What evidence do scientists have to support that argument?”

If you were student A, how would you answer student B’s question?

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Student C adds, “Actually, Earth has always changed and continues to change in the same ways.” Do you agree with student C? Why or why not?

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3. How does earth material cycle within the geosphere? As part of your explanation, consider how energy from inside Earth plays a role.

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4. A variety of hazards (like earthquakes, volcanic eruptions, etc.) result from natural geological processes. Provide examples of how humans can reduce the impact of natural hazards.

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5. Consider the following examples of resources humans use. Identify if each resource is a renewable (R) or nonrenewable (N) resource and explain why.

<table>
<thead>
<tr>
<th>Resource</th>
<th>R / N</th>
<th>Explanation</th>
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</thead>
<tbody>
<tr>
<td>The Sun</td>
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<tr>
<td>Fossil fuels</td>
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<td>Water</td>
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<td>Geothermal power</td>
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<td>Minerals</td>
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<td>Air</td>
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<td>Trees</td>
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</table>
6. Every place on Earth has a unique story of how its rocks and landforms formed (its geological story). What questions might you ask about a place in order to learn about its geological story?

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