Energy and Material Resources: Renewable or Not?
California Education and the Environment Initiative
Approved by the California State Board of Education, 2010

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California Environmental Protection Agency
California Natural Resources Agency
California State Board of Education
California Department of Education
Department of Resources Recycling and Recovery (CalRecycle)

Key Partners:
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**Energy and Material Resources Table**  
**Lesson 1**

Name: ________________________________

**Instructions:** List at least five examples for each of the two types of resources (energy and material). (1 point for each example, 10 points total)

<table>
<thead>
<tr>
<th>Energy Resources</th>
<th>Material Resources</th>
</tr>
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<tbody>
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</tbody>
</table>
Instructions: Complete the table with at least six specific resources you use for physical survival at home. One example has been provided for you. (1 point each, 24 points total)

<table>
<thead>
<tr>
<th>Resource</th>
<th>Material or Energy Resource?</th>
<th>Where is it found in nature?</th>
<th>How do you use it to meet a survival need?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Material</td>
<td>Underground aquifers, rainwater, snowmelt, creeks, streams, and lakes</td>
<td>By drinking it</td>
</tr>
</tbody>
</table>

Name: ____________________________
**Energy and Material Resources Essential at Home**

**Lesson 2 | page 2 of 2**

Name: _____________________________________

<table>
<thead>
<tr>
<th>Resource</th>
<th>Material or Energy Resource?</th>
<th>Where is it found in nature?</th>
<th>How do you use it to meet a survival need?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**Instructions:** Ask the following questions of an adult in your home. Record the answers in the spaces provided.

1. If you stacked up all the junk mail you receive in one month, how tall do you think the stack would be?

   ____________________________________________

   ____________________________________________

   ____________________________________________

2. How many rolls of toilet paper are used by your household in one month?

   ____________________________________________

   ____________________________________________

   ____________________________________________
Instructions: Define and give at least two examples of each type of resource.

1. What are “renewable resources?”
   Definition: (5 points)
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   Examples: (2 points)
   ____________________________________________________________
   ____________________________________________________________

2. What are “nonrenewable resources?”
   Definition: (5 points)
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   Examples: (2 points)
   ____________________________________________________________
   ____________________________________________________________

3. What are “inexhaustible resources?”
   Definition: (5 points)
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   Examples: (2 points)
   ____________________________________________________________
   ____________________________________________________________
Sample Decision Flowchart

Question:

Option 1 (Human Practices or Production):

Option 2 (Consumption):

Pros

Cons

Pros

Cons

Pros

Cons

Pros

Cons

Decision
Instructions: Read the prompts below and record your answers in the space provided.

1. Complete the decision flowchart, beginning at the top.
   - At the top of the flowchart, write the question you have been given to answer.
   - Record two options for solving the problem: a “human practices or production” option and a “consumption” option. (3 points per option)
   - Record at least two pros and two cons for each option. (4 points: 1 point for each)
   - Based on your pros and cons, select the option you think is best and record your decision in the decision box. (5 points)
   - Explain your decision by answering Question 2. (5 points)

Question:

Option 1 (Human Practices or Production):

Pros

Cons

Option 2 (Consumption):

Pros

Cons

Decision
2. Which option do you support? Explain how this option affects the availability of a material resource or energy resource essential to human life. (5 points)

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Instructions: Look at each picture and respond to the prompts. (5 points each)

1. **Rock Quarry**
   Identify whether rocks are a renewable, nonrenewable, or inexhaustible resource. Then, describe how human practices might change the availability and quantity of the resource.

2. **Pine Plantation**
   Identify whether trees are a renewable, nonrenewable, or inexhaustible resource. Then, describe how human practices might change the availability and quantity of the resource.
3. **Water**

   Identify whether water is a renewable, nonrenewable, or inexhaustible resource. Then, describe how human practices might change the availability and quantity of the resource.

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