Earth and Space Science

The _______ and _______ of a shadow help to predict where the ______ is located in the sky.

Water cycle: E, C, P, A, R

How does temperature affect the water cycle?

Climates tell us what about different regions?

<table>
<thead>
<tr>
<th></th>
<th>Is caused by...</th>
<th>Changes the land by...</th>
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</thead>
<tbody>
<tr>
<td>Weathering</td>
<td></td>
<td></td>
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<tr>
<td>Erosion</td>
<td></td>
<td></td>
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<tr>
<td>Deposition</td>
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Patterns of volcanoes and earthquakes show ____________________.

Renewable energy sources: ________________________________
Nonrenewable energy sources: ______________________________
What is the difference? ________________________________

Life Science

What does each part of a plant do?
- Bark
- Flowers
- Fruit
- Leaves
- Seeds
- Stems
- Roots

Plants make _______ using _____, _____, and ________.

Matter Moving:
- Air
- Consumers
- Decomposers
- Producers
- Soil
- Water

Food Web Arrows point in direction of ______. Source of energy in a food web: ____________
Life Cycle Stages: **B, G, R, D**  
Organisms need energy to: ____________  
Reproduction is important because ______.  
Fossils are used by scientists to__________.

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<th>Physical Science</th>
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<tbody>
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<td><strong>What causes a phase change?</strong></td>
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<tr>
<td>States Of Matter</td>
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</tbody>
</table>
| **Freezing makes a** ____________.
**Melting makes a** ____________.
**Evaporation makes a** ____________. |
| **Types of energy: S, L, H, and E** |
| **What happens to an object with balanced forces?** ________ or ____________ |
| **The direction of gravity is toward** ____________.
**Direction of friction on an object:** ____________ |
| **Kinetic energy** ________ as speed ____________.
**When objects collide,** ____________ is changed to ____________ and ____________. |
| N or S? |
| _______ | <-- | _______
| _______ | <-- | _______ |
| **Waves carry** ____________. |

<table>
<thead>
<tr>
<th>Technology/Engineering</th>
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</table>
| **Information** can be shown in charts, diagrams, graphic organizers, lists, and sketches.  
**Information** can be encoded, decoded, sent, or received.  
**Criteria for Success/Constraints**  
**Design features**  
**Prototype**  
**Failure points**  
**Variables** |

<table>
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<tr>
<th>Practices</th>
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</table>
| **What is the Claim?**  
**What is the Evidence?**  
**What is the Reasoning?**  
**Was data asked for in the question? Did you include it in your answer?**  
**If asked to provide a question, is it a testable question?**  
Spring 2024 MCAS – Grade 5 Science and Technology/Engineering Sample Reference Sheet |