Season Globes Data Sheet

Name _____________________

Circle your hypothesis:

Seasons are caused by Earth’s CHANGING DISTANCE from the Sun
OR
Seasons are caused by Earth’s TILT.

**Part 1: Distance**

Directions: Answer all questions. Record maximum voltage. Do this for only Utah in only one station.

1. What is the distance from the globe to the light?

2. How big is the change in distance?

3. What is the % change in distance?

<table>
<thead>
<tr>
<th>Station 1</th>
<th>Part 2: Tilt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage maximum</td>
<td>电压最大值</td>
</tr>
<tr>
<td>Near:</td>
<td>靠近:</td>
</tr>
<tr>
<td>Far:</td>
<td>远处:</td>
</tr>
<tr>
<td>Difference (%):</td>
<td>差值 (%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Station 2</th>
<th>Voltage maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utah:</td>
<td>电源:</td>
</tr>
<tr>
<td>Argentina:</td>
<td>阿根廷:</td>
</tr>
</tbody>
</table>
Station 3
Directions: Answer all questions. Record maximum voltage.

10. Is Utah in daylight for: half a rotation, less than half, or more than half? (Circle one.)

11. How long is the shadow of the peg near New York (at its shortest)? (Circle the shadow.)

12. When the shadow is at its shortest for this station, is the Sun’s position in the sky: high, medium, or low? (Circle one.)

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<td>Argentina</td>
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Station 4
Directions: Answer all questions. Record maximum voltage.

13. Is Utah in daylight for: half a rotation, less than half, or more than half? (Circle one.)

14. How long is the shadow of the peg near New York (at its shortest)? (Circle the shadow.)

15. When the shadow is at its shortest for this station, is the Sun’s position in the sky: high, medium, or low? (Circle one.)

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Part 3: Data Analysis
Directions: Plot data from part 2 on the graph. Answer all questions.

1. Which station represents Utah’s summer? How do you know?

2. Which season has the longest shadows? Which season has the shortest? Why?

3. Which has a greater effect: distance or tilt? (Circle one.)

<table>
<thead>
<tr>
<th>Distance Effect</th>
<th>Tilt Effect</th>
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