SEASONS
Session 2 - 3: Apparent Path of the Sun in the Sky

A. Make a prediction:

I think the Sun’s apparent path in the sky each day is ________________ throughout the year.

< the same / different >

If you think it is the same, explain why it is the same.
If you think it is different, describe how it is different.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
B. Collect data for Boston:

<table>
<thead>
<tr>
<th>Season and date</th>
<th>Marker Color (on SunTracker)</th>
<th>Sun Angle at Midday (in degrees)</th>
<th>Length of Day (in hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter (December 21)</td>
<td>blue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spring (March 21)</td>
<td>green</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summer (June 21)</td>
<td>red</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall (September 21)</td>
<td>black</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C. Compare and analyze data for Boston:

1. Which season has the highest Sun angle at midday? _________________________________
2. Which season has the lowest Sun angle at midday? _________________________________
3. Which season has the longest day length? ________________________________________
4. Which season has the shortest day length? _______________________________________
5. Which seasons have the same Sun angle at midday / day length? ________________________
6. Was the Sun ever directly overhead in Boston? _________________________________

D. Record your ideas:

How do you think the Sun’s height in the sky and the length of day affect temperature on Earth?

1. Here are some ways I think the Sun’s **height in the sky** affects temperature:
   
   ________________________________________________________________
   
   ________________________________________________________________

2. Here are some ways I think the **length of day** affects temperature:

   ________________________________________________________________
   
   ________________________________________________________________