Ocean Acidification Activity

Student: ____________________________

Procedure:

1. Put 50 mL of ocean water in a beaker.
2. Place a few drops of bromothymol blue into the ocean water. Record the color.
3. Obtain a pH meter and record the initial pH of the ocean. If you don’t have access to a pH meter, the indicator will give you approximate pH values.
4. Using a straw, blow into the ocean water until the indicator changes colors. It should change two times.
5. As the color changes, record the pH at each different color.

Data Table:

<table>
<thead>
<tr>
<th>Color</th>
<th>pH</th>
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<tbody>
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Questions to Consider:

1. What was the initial color of the ocean water containing the indicator? What is the corresponding pH? Is that acidic, basic, or neutral?

2. What happened to the color as you blew through the straw?

3. What happened to the pH as you blew through the straw?
4. What is the identity of the gas being disseminated into the ocean water?

Conclusions:

1. Why did the pH change as you blew through the straw?

2. What are the implications of burning fossil fuels to the pH of the oceans? Why are these ideas a problem for ocean ecosystems?

3. Do you see any connection(s) between global warming and this activity?