SN February 17, 2018 **Rising CO₂ Threatens Lake Food Webs**

Article-Based Observation: Q

Directions: Read the article "<u>Rising CO₂ threatens lake food webs</u>" and then answer these questions:

1. How are dissolved carbon dioxide levels and pH levels in oceans and lakes changing? Explain why these changes are occurring.

2. What is new about this study versus previous water acidification studies?

3. According to the article, how much did CO₂ and pH change in the lakes?

4. What data are the graphs displaying and what do the trend lines show? Be specific about the units of measurement used and the increments of measurement on each axis.



5. What are Daphnia, and what defenses do they have against predators?

6. What effect did increased CO₂ levels have on Daphnia in the lab?

7. Do scientists attribute the effect to increased CO₂ levels, decreased pH or both? Explain.

8. What uncertainties and unknowns does the article acknowledge?

9. What other questions do you still have after reading the article?

10. Summarize the article using the following key words: CO₂, pH, acidity, *Dapnia*, fleas, reservoirs and defenses.