LIMNIC ERUPTIONS
STATION #3A

KWLA Question: Why did the water sample from the bottom of the lake bubble when brought to the surface?

Investigation: How does the environment at the bottom of the lake vary from the top in terms of pressure?

Materials:

- Vernier LabQuest[9]
- Vernier Gas Pressure sensor[9]
- Fluorescent bulb cover (1.2 m) glued to a PVC cap with silicone caulk
- Flexible tubing (1.5 m) containing a weight (fishing sinker) attached to one end with a paper clip
- Bin to catch water overflow

Procedure:

1. Place tube in plastic bin to catch any spilled water.
2. Fill tube with water to the 0 cm mark.
3. Attach pressure sensor to flexible tubing.
4. Using LabQuest to collect gas pressure data every 10 cm.
    a. Tap Mode.
    b. Tap the arrow beside the top bar that reads time graph.
    c. Select Events with Entry.
    d. In name box, type "depth" and in units box type "cm".
    e. Tap OK.
    f. Press the START button.
5. Place the opening of the flexible tubing at the 0 cm mark directly above the water and allow the reading to stabilize. ALWAYS KEEP THE PRESSURE SENSOR ABOVE THE TUBE SO THAT WATER DOESN'T GET INTO THE SENSOR.
6. Collect data.
    a. Tap Keep.
    b. Type depth of "0" cm.
    c. Tap OK.
7. Drop the end of the tubing to the 10 cm mark and allow the reading to stabilize. Tap Keep, type in a depth of "10" cm, and tap OK.
8. Repeat step #7 for every 10 cm.
9. Sketch graph.

Outcome: (Analyze in your Limnologist's Journal.)

*See *Sources* page for footnote references.

Gina Barrier/Michelle Benigno
The Science House, NCSU