**Procedure**

1. Collect 4 empty plastic 2 liter soda bottles.

2. Remove labels; wash and rinse bottles thoroughly. Leave out to dry.

3. With permanent marker, label the bottles A, B, C, and D.

4. Prepare salt water according to directions on box. (Mix 1/2c. sea salt with each gallon of water.)

5. Pour 1 liter of salt water into each of the 4 bottles.

6. Using the glass pipette and bulb, carefully add 3mL of concentrated phytoplankton (nannochloropsis oculata) to bottles A and C.

7. Using the plastic disposable pipette, carefully add 2mL of used motor oil to the surface of the water in bottles B and D.

8. Turn computer on and start Logger Pro software.

9. Attach and turn on carbon dioxide sensor. Allow to warm up for at least 90 seconds.

10. Take carbon dioxide readings from each bottle, record, and seal with lid.

11. Place all 4 bottles in a row in a sunny, cool place.

12. After one week, bring inside and take carbon dioxide readings.

13. Place outside in same spot for 1 more week.

14. Take a third set of carbon dioxide readings.

[[Project Creek Watch](http://www.pleasanton.k12.ca.us/amador/Creek/index.html)][[Mr. Thiel](http://www.pleasanton.k12.ca.us/amador/faculty/science/thiel.html)][[1998 Projects](http://www.pleasanton.k12.ca.us/amador/Creek/AP98/AP98.html)][[1999 Projects](http://www.pleasanton.k12.ca.us/amador/Creek/AP99/AP99.html)][[2000 Projects](http://www.pleasanton.k12.ca.us/amador/Creek/AP2000/AP2000.html)][[2001 Projects](http://www.pleasanton.k12.ca.us/amador/Creek/AP2001/AP2001.html)]