**Advanced Prep for Lesson 2**

***Ocean Acidification: A Systems Approach to a Global Problem***

Below is the complete list of materials to be used in the 4 round robin lab stations recommended as Option B in Lesson 2. We suggest you set up at least two of each station to allow students to move quickly and safely through the labs. If you can set up additional “Detecting Carbon Dioxide” stations, this will minimize any bottleneck effect and will help students move more efficiently through the activity.

**Total Materials for 8 Stations**

|  |  |
| --- | --- |
| 24 balloons | CO2 gas probe (if accessible) |
| 16 straws | 16 test tubes with stoppers or caps |
| Dilute bromothymol blue (BTB)\* | 8 candles |
| 1.6 L vinegar | 8 sources of flame |
| Lime water (Ca(OH)2) (about 1L) | 8 packets of active yeast |
| 40g baking soda | 40g sugar |
| 16, 125 mL Erlenmeyer flasks | 16, 500 mL Erlenmeyer flasks |

Also, remember to print out enough handouts for each student to use during the lab.

\* Generally, a BTB solution at approximately 0.01% or below works well. See the photos in the student and teacher lab guides for an example of the shade of blue that works best. If you find your BTB is green instead of blue, titrate with a few drops of 0.1M NaOH slowly, swirling in between each drop, until your solution is blue again.