Eunice Foote Replica Experiment

Outline

Materials:

- Three containers
- Three container covers
- Two thermometers
- Baking soda
- Vinegar
- Funnel
- Heat Source (ex. Sunlight, heat lamp, hot plate, hot water, space heater)

Directions:

1. Label each container: one, two, and three respectively
2. Fill container 1 with normal air, place thermometer inside and cover
3. Make carbon dioxide
   a. Put 5 tablespoons of baking soda in container 2
   b. Pour in Vinegar as needed until reaction occurs
   c. When reaction occurs (Look for bubbling) quickly cover the container with its lid
   d. Wait for the reaction to settle (bubbling to go down)
   e. Grab your funnel, thermometer and your container 3
   f. Place thermometer inside of container 3
   g. Put the funnel in container 3 and pour the carbon dioxide into container 3 (pour as much as possible without getting any liquid into the container)
   h. Cover container 3 which has the carbon dioxide in it
4. Place both container 1 which has normal air and container 3 which has carbon dioxide under your heat source
5. Monitor and record the temperature changes for each container
6. Evaluate your results
Optional Links to Materials:

36 Pack: Plastic Storage Jar by Simply Tidy™, 8oz. | Michaels ($25.23 for a 36 pack)

12 in. Thermometer ($11.99)

Amazon.com: LEARNING ADVANTAGE Student Thermometers - Set of 10 - Dual-Scale - Mercury-Free - Easy To Read, Thermometers for Indoor Science and Classroom Use : Office Products ($11.25 for a 10 pack)

Heat Lamp ($15.98 for 1)

Link to Video Inspiration For Experiment:

YouTube - Eunice Newton Foote - Research Experiment - Women in STEM