

## Coke vs. Diet Coke - Density Test

### Purpose

To illustrate density by comparing regular and diet soda.

### Materials

1 can Coke or Pepsi

1 can Diet Coke or Diet Pepsi

4L beaker

### Procedure

1. Fill beaker about 2/3 with water.
2. Ask students if diet soda is really diet (light).
3. Place both cans of soda in water.
4. Observe that diet soda floats and regular soda sinks.

### Additional Information

1. Test this before class. Sometimes several pairs of cans must be tested to find a successful pair.
2. When immersing cans, tilt them to prevent getting a bubble on the bottom of the can which will affect the results.

### Questions for the Students

1. Why does the regular soda sink?
2. If the volumes of the cans are the same, what is varying?

### Disposal

Cans can be reused for future demos.

### Reference

ICE, Mt. San Antonio College, 1989.