

## YOUR MISSION!

Re-create Archimedes' Principle by using a simple method.  
Students will learn another method to measure buoyancy with displaced water.

### Materials

- 1000 ml beaker
- 1 small heavy object (marble)
- water
- string
- scale
- piece of tape



Ensign

1. Read the history and background science information for this activity. Organize your work station to start step one of the buoyancy test.



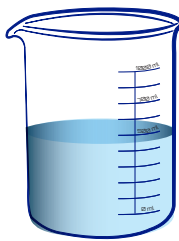
Lieutenant  
Commander

4. Take your heavy object and tie a string around it so it can be lowered into the beaker with water without touching the object or immersing your hands in the water. Place a piece of tape ensure the string does not move.



Lieutenant  
Junior Grade

2. Fill your beaker half way with water.



Commander

3. Place your beaker on the scale. Measure the weight of the water in the beaker. Record your findings. Now, Tare the scale (or zero the scale).
5. Take the string with the attached heavy object. Submerge the object, using only the string, into the beaker of water while still on the scale. Notice the change on the scale. What are your findings? Record and discuss with your class. Notice the weight is equal to the force of buoyancy of the marble.



Lieutenant

