**Is your egg rotten?**

A study on density

**Objectives**

1. Investigate density

**Material List**

1. fresh eggs
2. old eggs (a couple of weeks will do)
3. balance
4. graduated cylinder large enough to hold an egg
5. water
6. beaker or jar large enough to hold an egg

**Procedure**

Place an "old egg" in a container of water compare what happens to a fresh egg in a container of water.

Ask students to observe visual differences in the eggs.

Have the students

Find the mass of each egg.
Find the volume of each by water displacement.
Calculate the density of each egg by dividing the mass by the volume.

Compare the densities of the two eggs to how much the eggs are floating.

**Extensions/Additional Comments**

The old eggs float, they lose water as they sit. Rotten ones float really well as you can imagine. Number the eggs. Since the eggs are unopened, you can use them for several classes and compare the densities that each class found. People who have chickens find eggs in unusual places. These people will usually use the float method rather than the open and sniff method for obvious reasons for checking out the eggs.

**Assessment**

Have students order eggs by age using density.
Compare density of other objects.