

Name _____ Period _____ Date _____



Fluid Density

STEM Sims

Lesson 1: Does Size Matter?

Density is a measure of the compactness of a substance. Volume and mass are both related to density. Can you estimate the density of an object by looking at only its volume?

Doing the Science

1. Start the Fluid Density Simulation by clicking on the “Sim” tab.
2. Click on one of the large objects on the bottom shelf. Then click the “Release” button on the device in the tank.
3. Repeat step 2 for the other four large objects that remain on the bottom shelf.
4. Note and record in Table 1 the number of large objects that sunk and the number that floated.
5. Repeat step 2 for all of the five small objects that are located on the top shelf.
6. Note and record in Table 1 the number of small objects that sunk and the number that floated.

Table 1. Large Sinking and Floating Objects

Number of large sinking objects	
Number of large floating objects	

Table 2. Small Sinking and Floating Objects

Number of small sinking objects	
Number of small floating objects	

Do You Understand?

1. Propose a relationship that exists between the size of the object and density. Please discuss how you arrived at this relationship.
2. What additional testing could you conduct to better test the relationship you described in question #1?