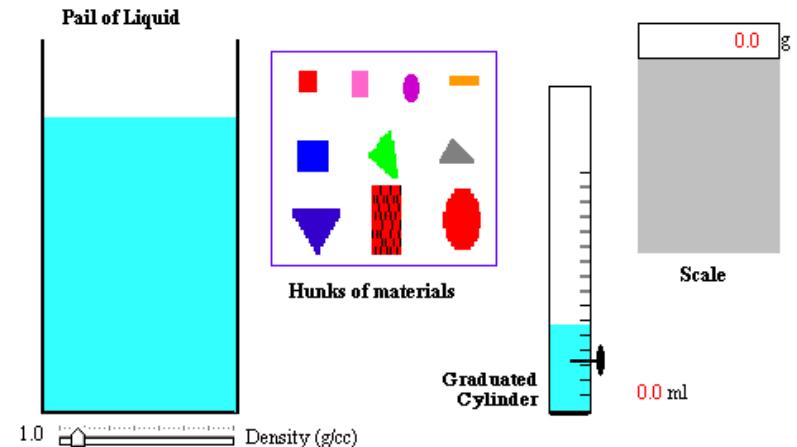


Float or Sink - Density

<http://ww2.unime.it/weblab/mirror/ExplSci/dswmedia/density.htm>

Glue this side
down into
your science
notebook

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Procedure:

1. Choose a shape from the box.
2. Record the shape and color into your data table.
3. Place the shape onto the scale and record the **mass** in grams.
4. Place the shape into the graduated cylinder and record the **volume** in mL.
5. Place the shape into the tank of water to see if it **floats or sinks**, write the result into the data table.
6. When you are done with all the objects, calculate the **density** for each to the nearest 100th using the formula $D = M \div V$.
7. Label the units: g/cm^3 ($1mL = 1 cm^3$)

The density of the water in the pail is **1.0 g/cm³**. List the items along with their densities into the correct column below.

Analysis Questions:

Answer the following using complete sentences.

1. Name the object with the largest **mass**. Did it float?
 2. Name the object with the smallest **mass**. Did it float?
 3. Name the object with the largest **volume**. Did it float?
 4. Name the object with the smallest **volume**? Did it float?
 5. For the objects that **floated**, what were their densities compared to the density of water?
 6. For the objects that **sank**, what were their densities compared to the density of water?
 7. If the density of the liquid in the tank was **2.0 g/cm³**, which objects would sink to the bottom and why?
 8. If the density of the liquid in the tank was **5.0 g/cm³**, which objects would sink to the bottom and why?

Conclusion: 2-3 complete sentences on what you learned in this lab.