Float or Sink – Density

http://www.hazelwood.k12.mo.us/~grichert/explore/dswmedia/density.htm

Procedure:

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

Object	Mass	Volume	Float or	Density
	grams	mL	Sink?	g/cm^3
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

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The density of the water in the pail is **1.0 g/cm^3**. List the items along with their densities into the correct column below.

Items that floated	
Object	**Density**

Items that sank	
Object	**Density**

Analysis Questions: Answer these using complete sentences.

1. For the objects that **floated**, what were their densities compared to the density of water?
2. For the objects that **sank**, what were their densities compared to the density of water?
3. Name the object with the largest **mass**.

   How many grams? Did it float? Why or Why not?
4. Name the object with the smallest **mass**.

   How many grams? Did it float? Why or Why not?
5. Name the object with the largest **volume**.

   How many ml? Did it float? Why or Why not?
6. Name the object with the smallest **volume**?

   How many ml? Did it float? Why or Why not?
7. If the density of the liquid in the tank was **5.0 g/cm^3**, which objects would sink to the bottom and why?

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

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