

Name: _____ Per _____

When do materials sink?

Beginning Thoughts: What determines if a material will sink or float in a particular liquid?

Procedure Write a procedure of how you will measure the volume and mass of all of the objects at your lab station. If an object has the same procedure, then write in in the same box.

Object	Procedure for Mass	Procedure for Volume

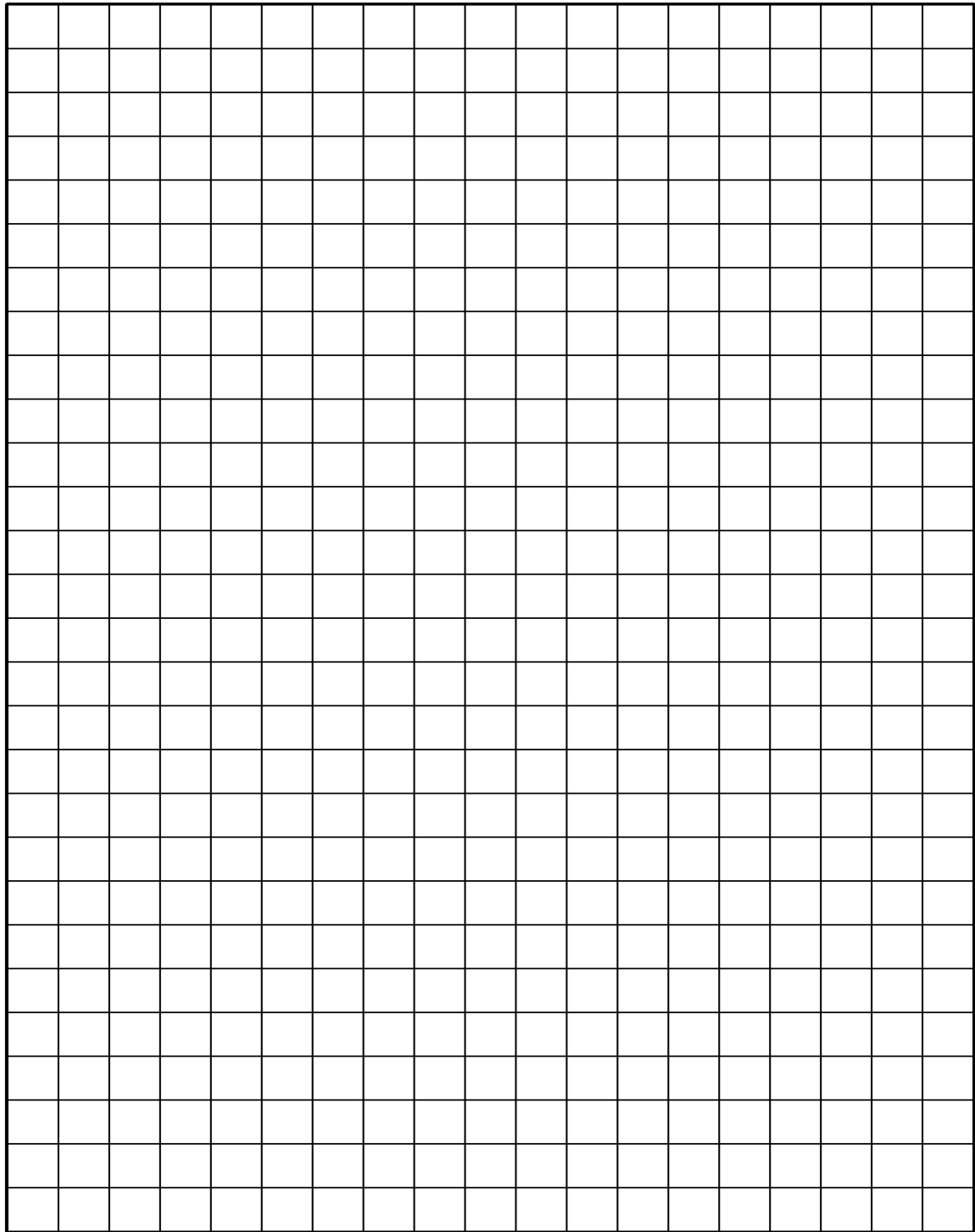
Instructor Approval: _____

Data Record your data in the following table. Helpful information $1 \text{ ml} = 1 \text{ cm}^3$. Make sure to show all work.

Material	Mass (g)	Volume (mL)	Sink/float
Water			
Foam block			
PVC pipe			
Wax			
Wood			
Glass			
Foam			

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Make a full page plot of your data with volume (in mL) on the x-axis and mass (in g) on the y axis. On your graph, circle the data points of objects that sank.



Post Lab-Questions:

1) Look at your graph. What do you notice about the points? Is there are trend that the points follow? What is similar about all of the points that sank? What is similar about all of the points that floated?

2) Calculate the ratio of mass to volume for each of your points. **Make sure to include units.**

Material	mass	volume	Mass/volume
Water			
Foam block			
PVC pipe			
Wax			
Wood			
Glass			
Foam			

3) Look at your mass/volume ratios above. What do the materials that **sank** have in common in regards to their mass/volume ratio?

4) Look at your mass/volume ratios. What do the materials that **float** have in common in regards to their mass/volume ratio?

