



**Subject:** Science/ Physics

**Name:** Malwan

**Lab report: Density Assignment**

**Date:**

**Grade-Section:** 8 H CS

**Title:** in few words, write a title that describes what you are aiming to determine with this experiment.

*Investigating the density of different materials.*

**Objective:** why are you conducting this experiment?

*To find the density of all the objects by finding their volume and mass.*

**Hypothesis:** what do you think the results will be when you conduct the experiment?

*If the density of an object (material) is less than the density of water (1 kg/L) then it will float.*

**Materials:** write down the items you will need to conduct this experiment.

1. Mass Balance or Scale
2. Volumetric Cylinder
3. Ruler
4. Water

*These are what we would usually use in the lab but since we are doing this remotely the simulation will have everything you need.*

*→ Objects (material) that have larger density than density of water will sink.*



**Observation:** What data did you collect in this experiment?

(5 marks)

Table 1

Letter	Mass of the object (kg)	Volume of the object ( $V_2 - V_1$ ) (L)	Density of the object (kg/L)	Material of the object (use the table given)
A	19.30	5.50	3.51	Diamond
B	0.40	1.00	0.40	Wood
C	19.32	1.00	19.32	Gold
D	5.00	5.00	1.00	Water
E	2.80	7.00	0.40	Wood

(5 marks)

Table 2

	Mass of the object (kg)	Volume of the object (L)	Density of the object (kg/L)	Material of the object
1.	01.23	3.14	0.39	Wood
2.	03.60	3.91	0.92	Ice
3.	10.00	3.703	2.70	Glass
4.	02.69	0.3	8.96	Copper

**Conclusion:** What conclusion or theory can you state regarding this experiment?

changing an object's mass or volume doesn't affect its density; different mass and different volume of the same object doesn't affect its density. Materials that have density less than the density of water will float and objects that have density greater than density of water will sink.

\* Objects of similar mass can have different volume. Objects of similar volume can have different mass. and therefore different densities

\* Density =  $\frac{\text{mass}}{\text{volume}}$