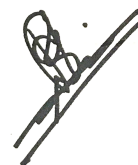


Grade - 4

Subject- Physics

Chapter – 11, Lesson - 2

How is matter measured?



Mrs. Ruksana and Mrs. Farhana

Definition:

- a. **Mass**- Mass is the amount of matter in an object.
- b. **Volume**- Volume is the amount of space that an object takes up.
- c. **Density**- Density is the amount of mass in a certain volume of matter.

Q/A

1. How is mass measured and what are its units?

Ans. Mass is measured by using a pan balance. Its units are milligram, gram and kilogram.

2. What are the differences between mass and weight.

Ans.

Mass	Weight
i. Mass is the amount of matter in an object.	i. Weight is the force of gravity on an object.
ii. It does not change.	ii. It can change when gravity changes.

3. How can we find the volume of a solid box?

Ans. We can find the volume of a solid box by measuring its length, width and height, and multiplying the measurements.

$$\text{Volume} = \text{length} \times \text{width} \times \text{height}.$$

4. How can we measure the volume of liquids? What are its units?

Ans. We can measure the volume of liquids by using a graduated cylinder. Its units are milliliter and liter.

Give reason.

i. Water floats in corn syrup.

Ans. Water floats in corn syrup because the density of water is less than the density of corn syrup.

ii. Steel sinks in water and cork floats.

Ans. The density of steel is more than water. So, it sinks. The density of cork is less than water. So, it floats.