

Class: 4

Subject: Science

Topic: Chapter 6: Matter

1. Fill in the blanks with appropriate words:

- a) The amount of space that matter takes up is called _____. Ans: volume
- b) _____ is a measure of how strongly the Earth pulls a matter to the centre of the Earth.
Ans: weight
- c) The unit of measuring weight is _____. Ans: kilogram
- d) Air _____ against a pressure. Ans: opposes
- e) All of matters have _____ even though they are small particles. Ans: weight
- f) A textbook takes up space. It is called _____ of a textbook. Ans: volume

2. Multiple Choice Questions:

- a) The common property of matter is:
- | | |
|-----------|-------------------|
| i. Colour | iii. Volume (ans) |
| ii. Odour | iv. Texture |
- b) Which measuring device can be used for measuring weight?
- | | |
|------------------|-------------------|
| i. Balance (ans) | iii. Ruler |
| ii. Thermometer | iv. Measuring cup |
- c) What is the unit of liquid volume?
- | | |
|--------------------------------------|---------------------|
| i. cm^2 (Square centimetre) | ii. L (Litre) (Ans) |
| iii. cm (Cubic centimetre) | iv. m (metre) |
- d) what is the unit of measuring cooking oil?
- | | |
|--------------------------------------|---------------------|
| i) cm^2 (Square centimetre) | ii. L (Litre) (Ans) |
| iii) cm (Cubic centimetre) | iv. m (metre) |
- e) What is the unit of measuring weight?
- | | |
|--------------------------------------|------------------------|
| i) cm^2 (Square centimetre) | ii. kilogram(kg) (Ans) |
| iii) cm (Cubic centimetre) | iv. m (metre) |

3. Write the answer of the following questions in brief:

- a) What is matter?
Ans: Anything that has mass and takes up space is called matter.
- b) What is volume?
Ans: The amount of space that matter takes up is called volume.
- c) Define weight.

Ans: Weight is a measure of how strongly the earth pulls a matter to the centre of the earth.

d) Mention the general properties of matter.

Ans: i) Matter takes up space

ii) Matter has weight.

e) What is the unit of measuring the volume of solid?

Ans: The volume of a solid is measured in cubic centimetres (cm^3) or cubic metres (m^3)

f) What is the unit of measuring weight?

Ans: The unit of measuring weight is kilogram (kg).

g) Name the unit of measuring the volume of liquid.

Ans: The volume of liquid is measured in mili litres (ml) and litres (L).

h) Mention the properties of air.

Ans: Air has properties such as:

- i. Air takes up space.
- ii. Air has weight.
- iii. Air opposes against a pressure.

4. Write the answer of the following broad questions:

a) Explain how we can prove through experiment that air is matter.

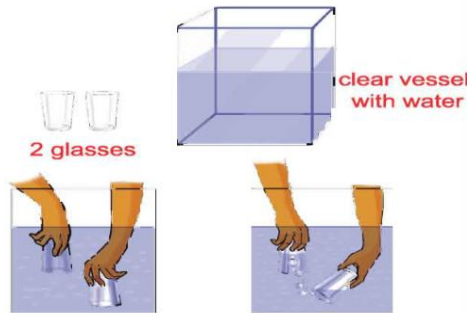
Ans:

Experiment:

1. Two clear glasses and a vessel filled with water are prepared.
2. One of the glasses into the water is sunk and allowed it to fill with water.
3. The glass is kept upside down under water.
4. The second glass is turned upside down and pushed it under the water
5. The second glass is brought under the first glass and tilted it up slightly to begin pouring air into the first glass.

Observation: When we tilt up the second glass filled with air, it allows the air to escape from glass. The air from the second glass is trapped by the first glass.

Result: This experiment shows that air takes up space in the glass instead of water.



b) How can you prove that matter takes up space? Explain with an experiment.

Ans: **Experiment:**

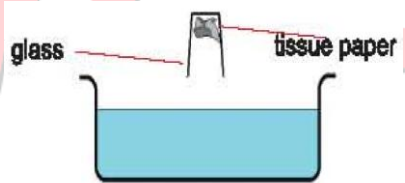
1. clear glass with water, rubber band and some pieces of stones are taken.
2. Marked the water line of glass with rubber band.
3. One piece of stone put in the glass and marked the water line with rubber band.
4. Removed the stone from glass and mark the waterline again with the rubber band.

Observation: when we put stone into the glass of water, the level of water line in the glass rises. When we remove the stone from the glass, the level of water is lowered to the level of rubber band.

Result: This experiment shows that matter takes up space.



c) An upside-down glass with some dry tissue paper attached is slowly pushed into a basin of water.



Answer the following question:

1. What will happen to the tissue paper? Why?

Ans: At the beginning, the tissue paper remains dry when the glass is pushed under the water. when we tilt up the glass filled with tissue paper, it allows the air to escape from

the glass. the air come out from the glass and allows water to take the place of air. Thus, the tissue paper in the glass becomes wet.

2. What property of air is shown in this experiment?

Ans: The property shown in this experiment is that air takes up space.

Revision



Work