



STEPPING STONE
SCHOOL (HIGH)

CLASS: 6

Subject: Physics

Date: 15/06/2020

Topic: Matter (Introduction)

Time Limit: 30 min.

Worksheet No. :10

[Copy the questions following the notes and solve them on a sheet of paper date wise.

Keep the worksheets ready in a file to be submitted on the opening day.]

Introduction: - Anything in our surrounding which we can see or touch is made up of matter. Thus, '*Matter is defined as anything which occupies space and has mass*'. It can be perceived by our sense of smell, touch, sight, hearing and taste. example- rock, wood, air, metal, water, animals etc. Matter is made up of tiny particles atoms or molecules which are very small in size.

- **Atoms:** An atom a fundamental piece of matter. Atoms combine to form molecule. An atom may usually does not have an independent existence.

Example-Neon, hydrogen, Iron etc.

- **Molecule:** Atoms combine to form molecules. It is smallest particle of matter which can exist independently & can retain physical and chemical properties of matter.

Example- water, Nitrogen, Ozone etc.

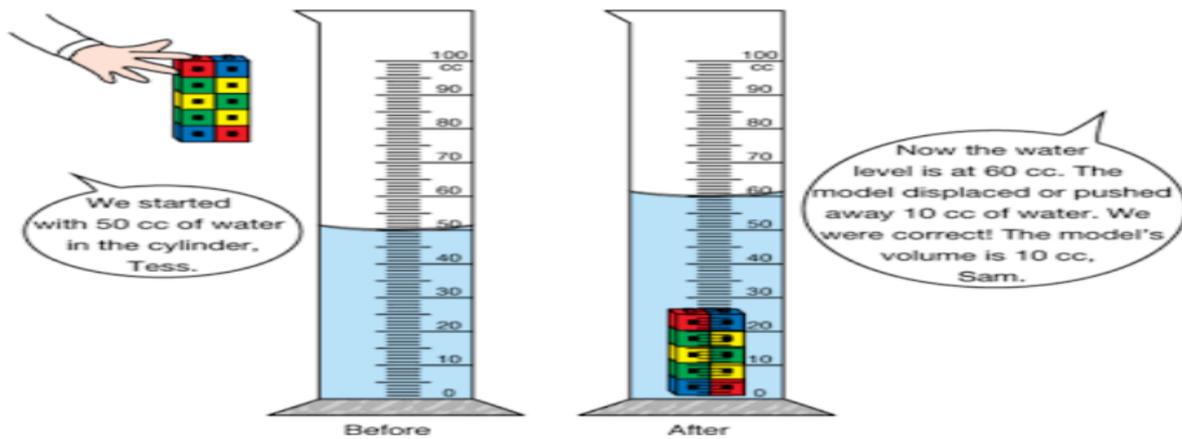
- ❖ **The molecules of a substance are held together by a force of attraction between them known as Intermolecular force of attraction.**
- ❖ **Depending upon the strength of intermolecular force, the space between the molecules varies for different state of matter known as Intermolecular space.**

A state of matter depends on the intermolecular force and the intermolecular space between its atoms or molecules.

Note:-Physical quantity like heat, light etc. are not considered to be matter because neither do they have mass nor do they occupy space.

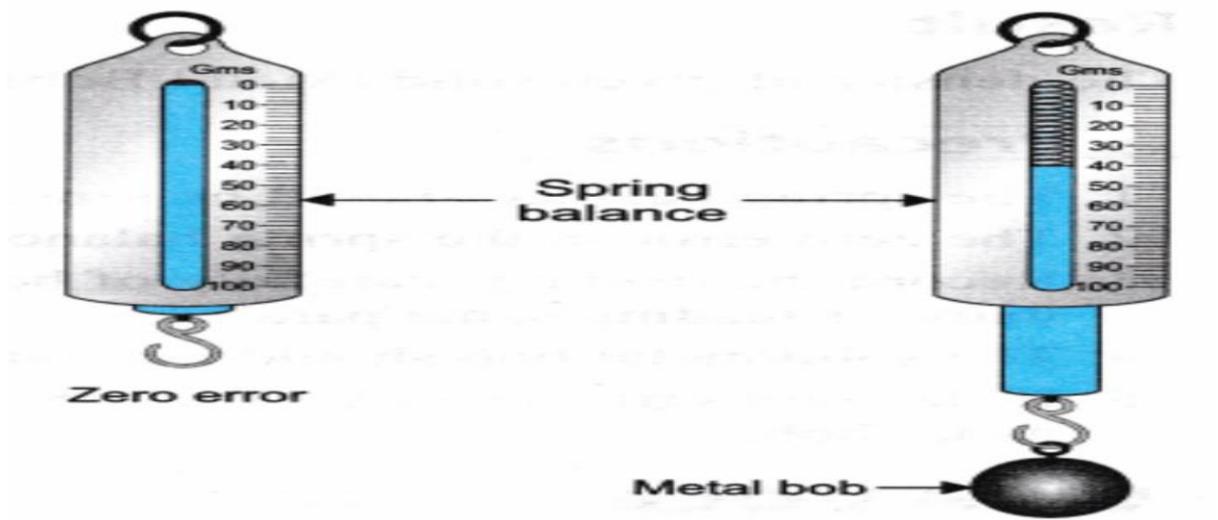
The two basic properties of matter are volume(occupies space) & mass(quantity)

1. Volume is the amount of space that matter takes up.



Conclusion: From the above observation, we conclude that matter occupies space. The model occupies space and pushes the water up in the beaker. Water is matter too and also occupies space.

2. Mass is the amount of matter an object has. Mass is what gives an object the properties of weight.



Conclusion: The difference between final and initial reading of the pointer gives the weight of metal bob .thus, we conclude that matter has mass.

Check your progress

Q1. State true or false. Correct the false statements.

- a. Matter occupies space and has mass.**
- b. Air is matter.**
- c. The amount of matter contained in an object is known as its volume.**
- d. An atom is the smallest particle of matter that can exist independently.**

Q2. Fill in the blanks-

- a. The space between the molecules of substance is known as _____.**
- b. The force of attraction between the molecules of a substance is known as _____.**
- c. An atom combines to form _____.**
- d. The amount of space occupied by matter is called its _____.**
- e. The amount of matter contained in an object is known as _____.**

Q3. Answer the following questions.

- a. What is matter composed of ?**
- b. Define intermolecular force and intermolecular space.**
- c. Define atoms and molecule with example.**

[Click here for you tube video on introduction to Matter](#)