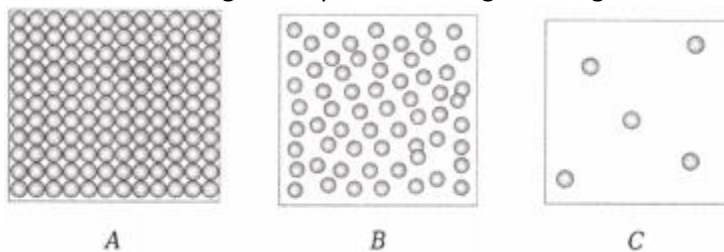


INTERNATIONAL INDIAN SCHOOL BURAI DAH
WORKSHEET FOR THE ACADEMIC YEAR 2026-27
Class- 8th Subject: Science
CHAPTER # 7 PARTICULATE NATURE OF MATTER

A. Choose the correct option:

- The property that allows gases to fill the entire available space is due to:
(a) Minimum movement of particles (b) Strong interparticle attraction
(c) Definite volume (d) Large interparticle spacing and free movement
- Which of the following correctly represents the sequence of changes when heat is continuously supplied to ice?
(a) Ice → Steam → Water (b) Steam → Water → Ice (c) Ice → Water → Steam (d) Water → Ice → Steam
- Which state of matter has a definite shape and volume?
(a) liquid (b) gas (c) solid (d) all three state of matter
- A substance has a fixed volume but no fixed shape. It takes the shape of the container it is poured into but cannot be compressed easily. This substance is most likely to be
(a) gas (b) liquid (c) ice (d) wood
- Observe the diagram of particle arrangements given below:



Which state of matter does arrangement C represent?

- (a) Solid (b) Liquid (c) Gas (d) Plasma
- Which of the following shows the correct order of increasing interparticle spacing among the three states of matter: solid, liquid and gas?
(a) Solid < Liquid < Gas (b) Gas < Liquid < Solid (c) Liquid < Solid < Gas (d) Solid = Gas < Liquid
 - In which state of matter are the constituent particles packed most closely together?
(a) Liquid (b) Solid (c) Gas (d) Option (a) and (b)

B. Fill in the blanks:

- The state in which particles move freely in all directions is called _____.
- Anything that has mass and occupies space is called _____.
- _____ have a fixed volume and do not have fixed shape .
- Gases have large interparticle _____ and are highly _____ making them very different from solids and liquids.
- The interparticle force is strongest in a _____.

6. A substance always changes its state when it is exposed to _____.
7. _____ have definite shape and volume due to tightly packed particles.
8. The minimum temperature at which a liquid boils and turns into vapour at atmospheric pressure is called its _____.

C. Write True (T) or False (F) for the statements given below:

- (a) The arrangement and movement of particles in matter help to determine whether it is solid, liquid or gas.
(b) Particles of matter are always at rest.
(c) Particles in solids can move freely in all directions.
(d) Gases do not have a fixed volume because their particles are free to move in all directions.
(e) Water vapour contains tightly packed particles.

D. The questions given below consist of an Assertion and a Reason. Based on that, choose the appropriate option.

- (a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
(b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
(c) Assertion is true, but Reason is false.
(d) Assertion is false, but Reason is true.

1. **Assertion:** All matter is made up of extremely small particles .

Reason: Grinding chalk into fine powder changes its form but not its basic property.

2. **Assertion:** Solids have a definite shape and a fixed volume.

Reason: The particles in solids are tightly packed and can only vibrate about their fixed positions.

3. **Assertion:** Liquids do not have a fixed shape but maintain a fixed volume.

Reason: In liquids, the particles are tightly packed and cannot move past one another, allowing them to flow.

E. Answer the following questions:

1. Name the state of matter that has a definite volume but no definite shape.
2. Define : a) Boiling point b) Melting point
3. What is the space between the particle in matter called?
4. What is the force between the particles of matter called?
4. Study the images given below and name the state of matter for each image.

