

# St. Andrews Scots Sr. Sec. School

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Session: 2024-25

Class: IV      Subject: Science      Topic: Solid, Liquid and Gas      Lesson No: 4

- Reading of the chapter
- Explanation (will be done in class)

## (Textbook exercise)

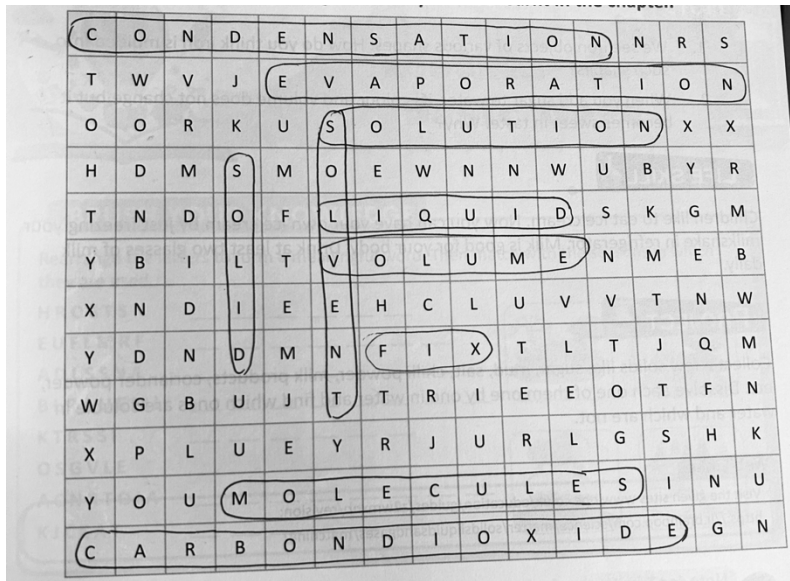
- A. Tick (✓) the right answer.
  1. (b) Water
  2. (c) Solvent
  3. (b) water
  4. (c) Love
- B. Fill in the blanks.
  1. Melting
  2. Water
  3. Solid
  4. Freezing
- C. Circle the odd one and justify.
  - (a) Water - It is not a gas
  - (b) Sugar - It is not a liquid
  - (c) Juice - It is not a solid

(d) Matter - It is not a form of matter

• **D. Write whether the following statements are (T) for True or (F) for false.**

1. True
2. False
3. True
4. False

• **E. Find ten words in the given grid which you have learnt in the chapter.**



• **F. Short answer questions.**

2. **Why can't solids flow? (In book)**

**Ans.** Its molecules are closely packed.

3. **Name two soluble gases. (In book)**

**Ans.** Carbon dioxide and oxygen.

## (Notebook Work)

- **New Words**

1. Occupies
2. Molecules
3. Definite
4. Container
5. Volume
6. Loosely
7. Substances
8. Evaporation
9. Condensation
10. Melting
11. Freezing
12. Solubility

- **Defines**

1. **Occupy** -To fill or take up a space
2. **Solute** - A substance that is dissolved in a solvent.
3. **Volume** - Amount of space occupied by matter
4. **Molecules** - Smallest units of a substance

- **Fill in the blanks.**

1. A solid changes into liquid on **Melting**.
2. **Water** is known as universal solvent.
3. A **Solid** has fixed shape and definite volume.

4. The change of liquid into solid on cooling is called **Freezing**.

5. The two parts of a solution are **solute** and **solvent**.

- **Short Question Answers**

**Q.1 What is matter?**

**Ans.** Anything that has mass and occupies space is called matter.

**Q.2 How is a gas able to spread in all directions?**

**Ans.** In gases, molecules are very loosely packed so they can flow freely.

**Q.3 What is the difference between solute and solvent?**

**Ans.** A substance that dissolves in a liquid is called solute.  
A liquid in which solute dissolves is called solvent.

- **Long Question Answers**

**Q.1 List the properties of solids, liquids and gases.**

**Ans.** Solid

- They have definite shape and volume.
- Their particles are closely packed.

Liquid

- They have definite volume but no definite shape.
- Their particles are not closely packed.

Gases

- They neither have definite shape nor definite volume.
- Their particles are loosely packed.

**Q.2 What do you understand by the terms solution and solubility?**

**Ans.** A solution is a liquid mixture in which the components present in small amount are uniformly distributed within the components present in large amount.

Solubility is a chemical property that refers to the ability of a given substance (the solute) to dissolve completely in a solid.

**Q.3 Define the terms:**

**Evaporation** - Conversion of liquid into gas on heating is called evaporation

**Condensation** - Conversion of gas into liquid on cooling is called condensation.

**Freezing** - Conversion of liquid into solid on cooling is called freezing.

### Give Reasons

**1. We see iron objects of various shapes. How do you think iron is molded into such shapes?**

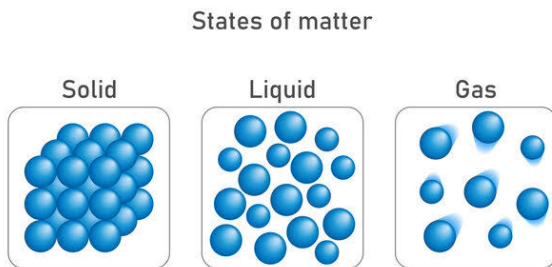
**Ans.** Iron can be moulded into different shapes by melting it.

**2. When you add sugar to water, its colour and volume does not change, but it becomes sweet in taste. Why?**

**Ans.** Sugar gets dissolve in water and its molecules occupy the space between the particles of water.

### Diagrams

**Draw a well labelled diagram of:**



### • Dictation

Any 10 words

### • Activity

Collect a few solids like sugar, mud, salt, chilli powder, milk products, coriander powder, etc. Dissolve each one of them one by one in water and find which ones are soluble in water and which are not.