

WELCOME TO THE ONLINE CLASS

SESSION NO.: 3

CLASS: 4

SUBJECT: SCIENCE

CHAPTER NUMBER: 5

CHAPTER NAME: SOLIDS, LIQUIDS AND GASES

SUB TOPIC: STATES OF MATTER ARE INTERCHANGEABLE

CHANGING YOUR TOMORROW

LEARNING OBJECTIVE

To enable the learner to:

- **Understand the changing states of matter**

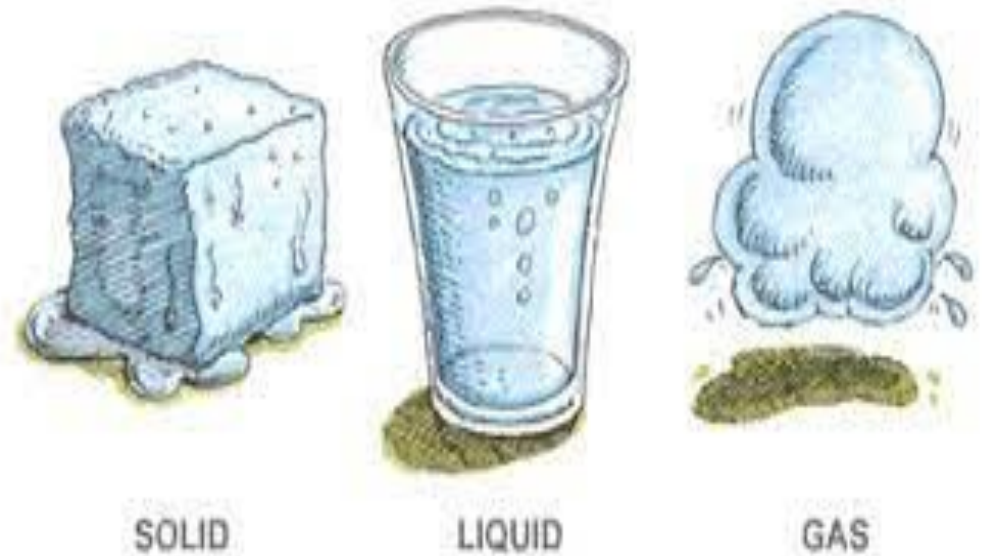
WARM UP

- Liquid can be poured in _____ and take the shape of it.
- How are molecules packed in the liquid state?
- Which state occupies less space than gaseous state?
- Molecules in _____ can move and compressed easily.
- Air is mixture of how many gases?
- Which state of matter has no fixed shape and volume?

STATES OF MATTER INTERCHANGES

- Solid ,liquid and gas are interchangeable states.
- We have already studied about the three forms of water

1. Solid
2. Liquid
3. Gaseous



ACTIVITY: Look at figure very carefully. Follow the sequence and fill in the table

Step	initial state	heating/cooling	final state	process
A	Ice	heating	water	melting
B	water	heating	hot water	boiling
C	hot water	cooling	Cold water	cooling
D	cold water	cooling	ice	freezing



HEAT → **HEAT**

(**STEP A**) (**STEP B**)



COOL → **COOL**

(**STEP C**) (**STEP D**)

DIFFERENT WAYS OF CHANGING THE STATES OF MATTER



HEATING



BOILING



MELTING



COOLING



FREEZING

Activity: Observe and note it down

It is clear from the figure that one form of matter can be changed into another by heating or cooling.

LET US DO!!

- **Take a wax candle .**
- **Light it and let it burn.**
- **Observe it carefully.**

What happens to the wax after some time?
>Solid wax melts on getting heated.



Write the short answers

Q1. What is matter made up of?

Ans: . All matter in the world is made up of molecules.

Q2. What are molecules?

Ans: . Molecules are the smallest substances in the matter that can exist independently.

Q3. Name a solid that turns to liquid when taken out from refrigerator.

Ans: Ice is a solid that turns to liquid when taken out from refrigerator.

SUMMARY

- **Solid, liquid and gas are interchangeable states.**
- **We have three forms of water in solid, liquid and gaseous.**
- **Water on heating can be converted into water vapour.**
- **Water on cooling can be converted into ice cubes or in a freezing form.**
- **Burning of candle can get melted into wax.**



Q1. How water can be converted into solid state?

Ans: freezing

Q2. In which state do molecules easily move around?

Ans: Gases

Q3.What happens to the burning candle?

Ans: Candle starts melting into wax

Q4. Which method can be used to convert ice into water?

Ans: melting

HOMework

- **Draw a picture to show the states of matter are interchangeable.**

LEARNING OUTCOME

The learner will be able to:

- **Understand the changing states of matter**

THANKING YOU
ODM EDUCATIONAL GROUP