

MATTER

SUBJECT-PHYSICS

CHAPTER NO- 1

States of matter, distinction between solids, liquids and
gases

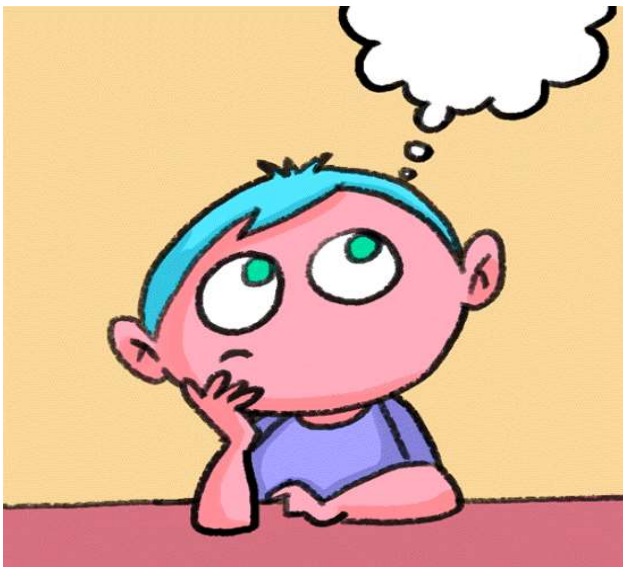
PERIOD-4

CHANGING YOUR TOMORROW

LEARNING OBJECTIVE

Students will be able to

- Familiarize with the states of matter
- Distinguish between solid, liquid and gas

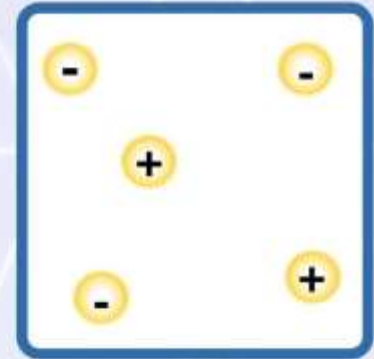
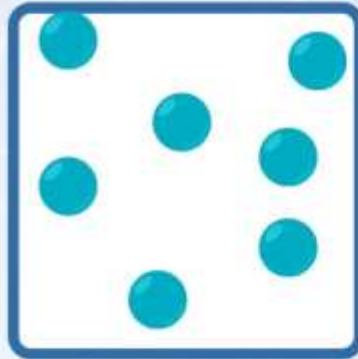
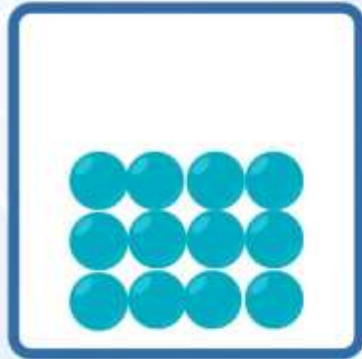


WARM UP QUESTIONS

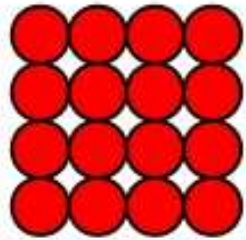
- Recapitulation of the previous topic by asking the following questions.
- Explain that particles of matter have space between them.
- How can you explain that particles of matter are always in random motion?
- Give any one example to explain particles of matter attract each other.

States of matter

States of Matter

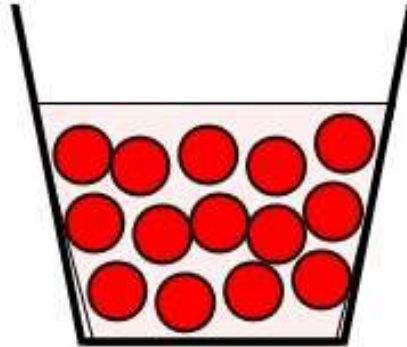


SOLIDS



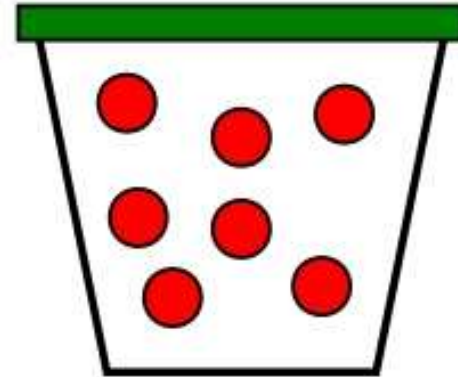
The molecules are held together with strong bonds. They don't move very easily so SOLIDS can keep their own shape and size

LIQUIDS



The molecules have weaker bonds. They can move around slightly so LIQUIDS can flow. They can't keep their shape unless they're in a container.

GASES






The molecules are free to move around. They can spread around an open space quickly and freely. GASES can't keep their shape unless they are kept in a *sealed* container.

- Explain the three states of matter.
- https://youtu.be/o2qM4o8e_Vo

Three properties which decides the states of matter

- The **kinetic energy** of particles due to their motion or movement of molecules
- Force of attraction between the molecules.
- Inter- molecular space.

Distinguish between solid, liquid and gas

	Properties	Solids	Liquids	Gases
1	Mass	Definite	Definite	Definite
2	Shape	Definite	Acquires the shape of the container	Acquires the shape of the container
3	Volume	Definite	Definite	Indefinite
4	Compressibility	Not possible	Almost Negligible	Highly Compressible
5	Fluidity	Not possible	Can flow	Can flow
6	Rigidity	Highly rigid	Less rigid	Not rigid
7	Diffusion	Slow	Fast	Very fast
8	Space between particles	Most closely packed 	Less closely packed 	Least closely packed 
9	Interparticle force	strongest	Slightly weaker than in solids	Negligible

- Explain the concept by the help of a video
- <https://youtu.be/Asx1D31gRxA>

HOME ASSIGNMENT

- Exercise- A 3,4
- Q. Distinguish between solid , liquid and gas
- Q. what are three properties which decides the state of a substance?

THANKING YOU
ODM EDUCATIONAL GROUP