

## **\*\*States of Matter\*\***

- **\*\*Definition:\*\*** Matter is anything with mass and takes up space.
- **\*\*Classification:\*\***
  - Solids: definite shape and volume
  - Liquids: no definite shape, but definite volume
  - Gases: no definite shape or volume

## **\*\*Properties of Matter\*\***

- **\*\*Density:\*\*** Mass divided by volume
  - Solids and liquids have high density
  - Gases have low density
- **\*\*Compressibility:\*\***
  - Solids and liquids are slightly compressible
  - Gases are highly compressible

## **\*\*Phase Changes\*\***

- **\*\*Melting:\*\*** Solid to liquid (absorbs heat)
- **\*\*Vaporization:\*\*** Liquid to gas (absorbs heat)
- **\*\*Sublimation:\*\*** Solid to gas (skips liquid phase)
- **\*\*Freezing:\*\*** Liquid to solid (releases heat)
- **\*\*Condensation:\*\*** Gas to liquid (releases heat)
- **\*\*Deposition:\*\*** Gas to solid (releases heat)

## **\*\*Plasma\*\***

- Fourth state of matter
- Ionized gas
- Conducts electricity
- Present in the sun, neon signs, fire, and lightning