# Matter

## States of Matter

* Solid
  + Fixed shape and volume
* Liquid
  + Fixed volume, variable shape
* Gas
  + No fixed shape or volume
* Plasma
  + High-energy state with ionized particles

## Properties of matter

* Physical Properties
  + Mass
  + Volume
* Chemical Properties
  + Reactivity
  + Flammability
* State Changes
  + Melting
  + Evaporation
  + Condensation

## Atomic Structure

* Atoms
  + Basic units of matter
* Molecules
  + Two or more atoms bonded together
* Bonding
  + Iconic, Covalent, Metallic bonds

## Phase Diagrams

* Definition
  + Graphical representation of the states of matter at different conditions
* Key Factors
  + Triple Point: Where solid, liquid, and gas coexist
  + Critical Point: End point of the liquid-gas boundary
* Uses
  + Understanding conditions under which matter changes state