

The Particle Model of Matter

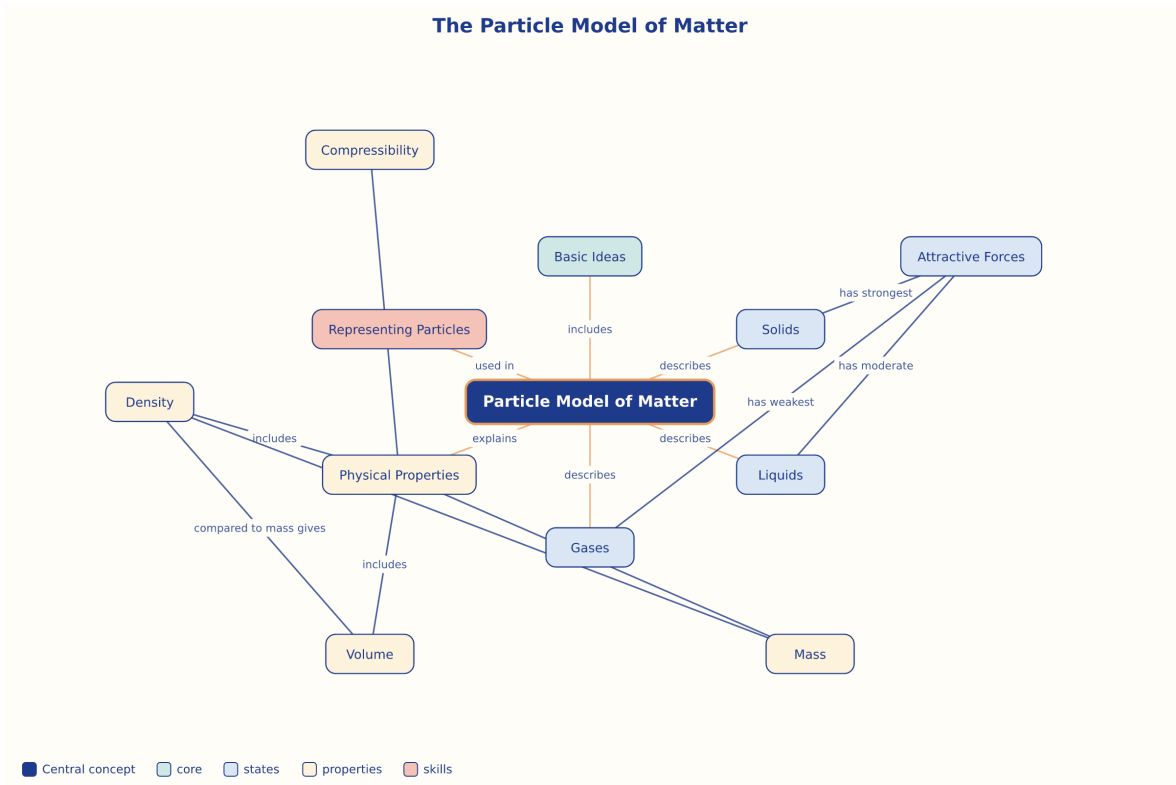
Central concept: **Particle Model of Matter**

Connections

- Particle Model of Matter (includes) -> Basic Ideas
- Particle Model of Matter (describes) -> Solids
- Particle Model of Matter (describes) -> Liquids
- Particle Model of Matter (describes) -> Gases
- Particle Model of Matter (explains) -> Physical Properties
- Particle Model of Matter (used in) -> Representing Particles
- Solids (has strongest) -> Attractive Forces
- Gases (has weakest) -> Attractive Forces
- Liquids (has moderate) -> Attractive Forces
- Physical Properties (includes) -> Mass
- Physical Properties (includes) -> Volume
- Physical Properties (includes) -> Density
- Physical Properties (includes) -> Compressibility
- Mass (compared to volume gives) -> Density
- Volume (compared to mass gives) -> Density

Notes

- **Particle Model of Matter:** Explains the behaviour of particles in matter. [Understanding, PDF p.1](#)
- **Basic Ideas:** All matter is made of small particles that are always moving and have spaces between them. [Knowledge, PDF p.1](#)
- **Solids:** Particles are close together and vibrate in place. [Knowledge](#)
- **Liquids:** Particles have spaces and can slide past each other. [Knowledge](#)
- **Gases:** Particles have large spaces and move in all directions. [Knowledge](#)
- **Attractive Forces:** Strongest in solids, weakest in gases, affecting particle arrangement. [Knowledge, Skills](#)
- **Physical Properties:** Include state, mass, volume, density, and compressibility. [Knowledge](#)
- **Mass:** Amount of matter, measured in grams and kilograms. [Knowledge](#)
- **Volume:** Amount of space matter takes up, measured in millilitres and litres. [Knowledge](#)
- **Density:** Compares mass to volume; denser objects sink, less dense objects float. [Knowledge](#)
- **Compressibility:** Ability of a liquid or gas to reduce in volume under pressure. [Knowledge, Skills](#)
- **Representing Particles:** Students draw and relate particle arrangement to state of matter. [Skills, Resource](#)



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