

The Particle Model of Matter

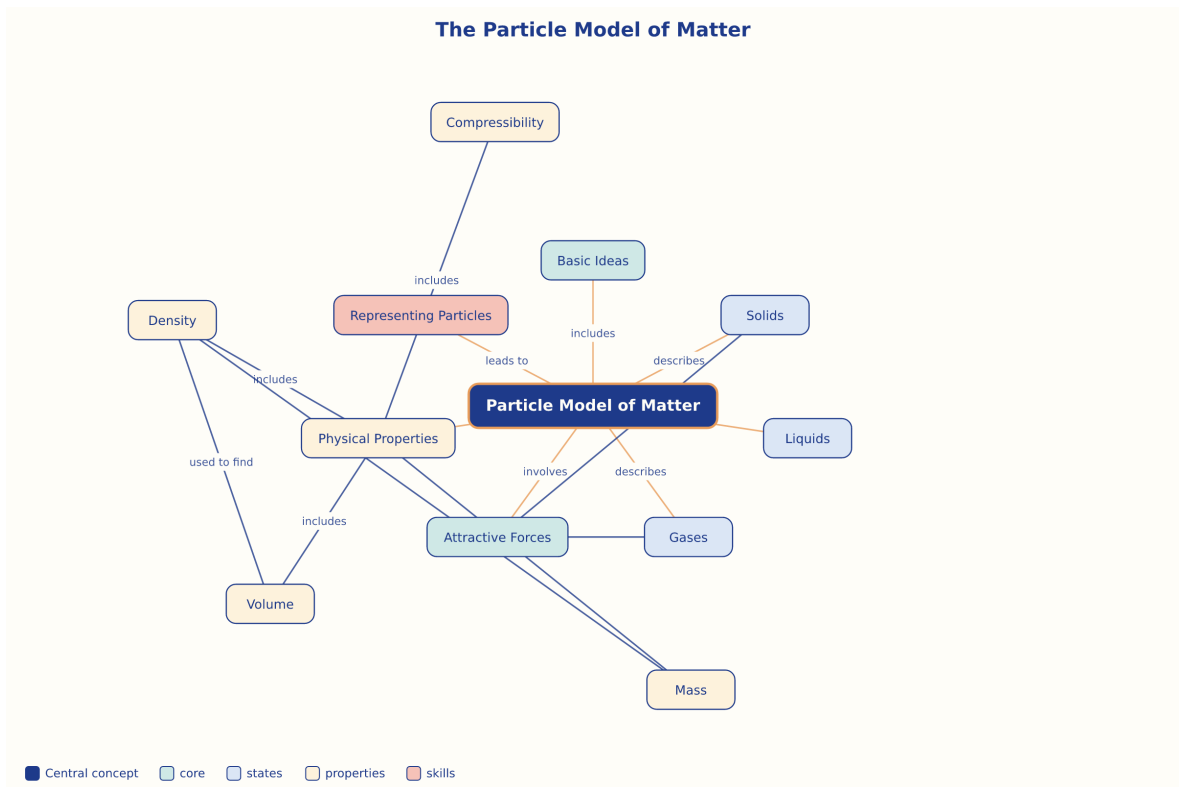
Central concept: **Particle Model of Matter**

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 (involves) -> Attractive Forces
- Particle Model of Matter (explains) -> Physical Properties
- Particle Model of Matter (leads to) -> Representing Particles
- Attractive Forces (strongest in) -> Solids
- Attractive Forces (weakest in) -> Gases
- Physical Properties (includes) -> Mass
- Physical Properties (includes) -> Volume
- Physical Properties (includes) -> Density
- Physical Properties (includes) -> Compressibility
- Mass (compared to volume) -> Density
- Volume (used to find) -> 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, with spaces between them. [Knowledge](#), [PDF p.1](#)
- **Solids:** Particles are close together and vibrate in place. [Knowledge](#), [Resource](#)
- **Liquids:** Particles have spaces and can slide past each other. [Knowledge](#), [Resource](#)
- **Gases:** Particles have large spaces and move constantly in all directions. [Knowledge](#), [Resource](#)
- **Attractive Forces:** Strongest in solids, weakest in gases, affecting particle movement and arrangement. [Knowledge](#), [Skills](#)
- **Physical Properties:** Include state, mass, volume, density, and compressibility. [Knowledge](#), [Understanding](#)
- **Mass:** Amount of matter, measured in grams (g) and kilograms (kg). [Knowledge](#), [Skills](#)
- **Volume:** Amount of space matter takes up, measured in millilitres (mL) and litres (L). [Knowledge](#), [Skills](#)
- **Density:** Compares mass to volume; denser objects sink, less dense objects float. [Knowledge](#), [Skills](#)
- **Compressibility:** Ability of liquids and gases to reduce in volume under pressure. [Knowledge](#), [Skills](#)
- **Representing Particles:** Students represent and relate particle movement to states of matter. [Skills](#), [Skills](#)



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