

Knowledge Organiser Science: States of Matter

Everything on our plant 'Earth' is made of materials: Solids, Liquids and Gases. Different materials have different properties and can affect the jobs they are used for.

The three different properties of these materials are **changing shape**, **flowing** and **changing its volume**.

Vocabulary

Solid: a state of a material when it cannot change shape, but holds the shape of whatever container it was frozen in.

Liquid: a state of a material when it can flow from one place to another, and can be poured.

Gas: a state of a material when it fills the entire space available.

Matter: another name for 'material': what an object is made of; not just fabric.



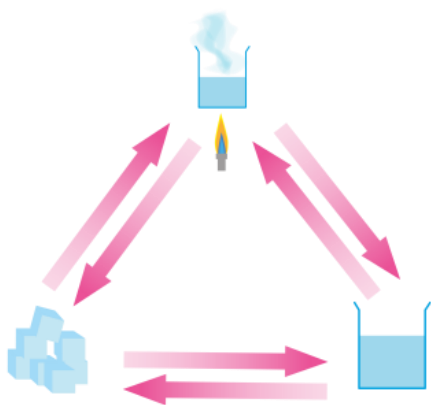
A burning candle is a solid, liquid and gas.

Solids = Wood, Soap, Iron, Brick and Ice

Liquids = Paint, Petrol, Vinegar, Water & Cola

Gases = Helium, Steam, Hydrogen, Oxygen & Carbon Dioxide

Flowing : Can the materials flow? **Liquids** and **gases** can flow, whereas **solids** cannot flow.



Changing Volume : Can the materials change their volume by being squeezed? A liquid and a solid material don't change very much in volume, but they can expand slightly when put under extreme temperatures (hot & cold). A gas can be changed by squashing it.

