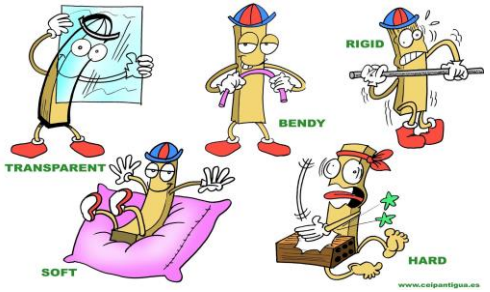
Science Knowledge Organiser

Properties & Changes of Materials

Chemistry



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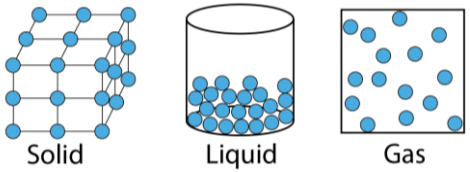
What should I know already

- The name of everyday materials, including wood, plastic, glass, metal, water, and rock
- Simple physical properties of a variety of everyday materials
- How to compare and group together a variety of everyday materials on the basis of their simple physical properties
- That some materials change state when they are heated or cooled
- Evaporation and condensation occur in the water cycle

Vocabulary

Solubility	When a substance can dissolve
Evaporation	The process of turning from liquid to vapour, when heated
Condensation	Water vapour becoming liquid
Filtering	pass (a liquid, gas, light, or sound) through a device to remove unwanted material
Solute	A solute is a substance dissolved in another substance.
Solvent	A solvent is a liquid that dissolves a solid, liquid or gaseous solute
Solution	A liquid mixture in which a solute is mixed within a solvent.
Conductivity	When a material allows heat oe electricity to pass through it
Reversible change	A physical change that can be undone, like freezing, melting, dissolving, boiling, evaporating and condensing.



By the end of the unit, I will know that:

1. Materials can be compared and grouped together on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets
2. Some materials will dissolve in liquid to form a solution
3. Some substances can be recovered from a solution
4. Mixtures can be separated, through filtering, sieving and evaporating
5. There are reasons for the particular uses of everyday materials, including metals, wood and plastic
6. Dissolving, mixing and changes of state are reversible changes
7. Some changes result in the formation of new materials, and that this kind of change is not usually reversible.