## The Knowledge

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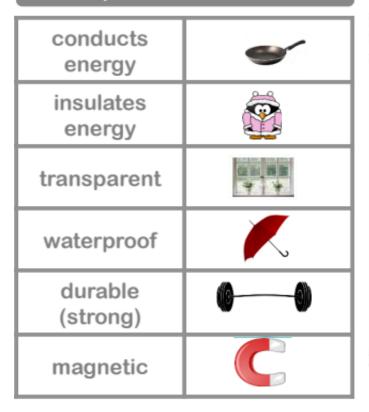
**Learning More** 

# Properties of Materials



## **Key Facts**

#### **Properties of Materials**





Wooden spoons and plastic handles insulate heat so hands do not get burned.

**Soluble** materials: solids which **dissolve** in water. **Insoluble** materials: solids which **do not dissolve** in water.



## Key Vocabulary

**Conductive** – a material that allows heat and/or electricity to pass through it

**Thermal** – using or producing heat

Magnetic - material that is attracted to a magnet

**Conduction** – heat moving from one object to another through contact

**Hardness** – resistance to scratching and pressure

**Force** - when an object is acted upon by a pull or push motion in a specific direction

Dissolve - to mix with a liquid and become part of the liquid

Solute - a substance that can be dissolved in liquid

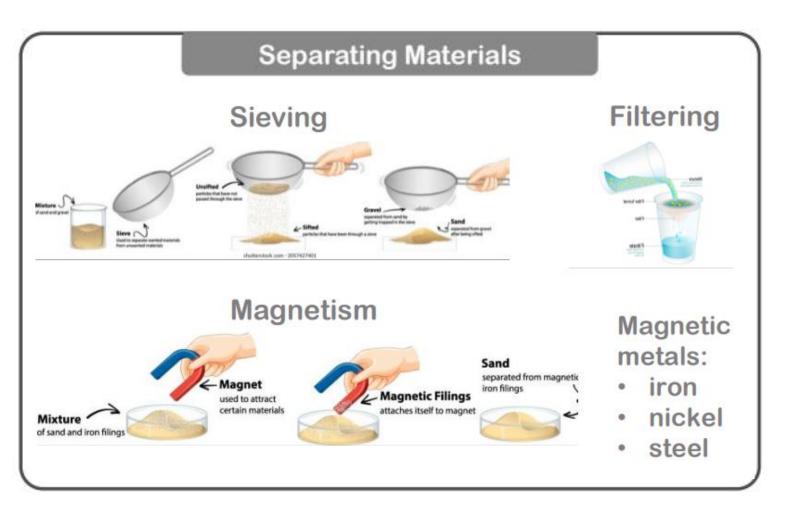
**Solvent** - a substance that can dissolve a solute, water is a solvent

**Substance** – any material, such as sugar

**Solution** – A mixture of a substance and the liquid it has dissolved in

**Filtering** – the separation of a mixture using a tool with small holes to separate particles

**Evaporation** – the process where a liquid changes into a gas.



### **Test Yourself**

- Can you name any different properties of a material?
- What does the term 'thermal conductor' mean?
- Which materials are thermal conductors?
- How does the hardness of a material make it suitable for a given task?
- What does it mean if a material is soluble or insoluble?
- What does solute mean?
- What is a solvent?
- What factors affect the solubility of solutes?
- How can mixtures be separated?