

Knowledge Organiser

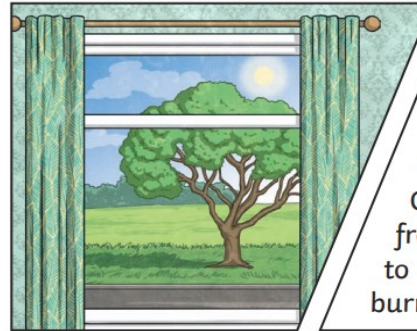
Properties of materials: Year 5

Key Vocabulary

- Materials** The substance that something is made out of, e.g. wood, plastic, metal.
- Conductor** A **conductor** is a material that heat or electricity can easily travel through. Most metals are both thermal **conductors** (they conduct heat) and electrical **conductors** (they conduct electricity).
- Insulator** An **insulator** is a material that does not let heat or electricity travel through them. Wood and plastic are both thermal and electrical insulators.
- Electrical** An object that allows the flow of **electrical** power to pass through it.
- Thermal** A condition that allows heat to pass through the protective barrier.
- Temperature** How hot or cold it is. Measured in degrees Celsius or degrees Fahrenheit.

Key Knowledge





Different **materials** are used for particular jobs based on their properties: electrical **conductivity**, flexibility, hardness, **insulators**, magnetism, solubility, thermal **conductivity**, **transparency**.



For example, glass is used for windows because it is hard and **transparent**. Oven gloves are made from a thermal **insulator** to keep the heat from burning your hand.



Conductors and Insulators

	Good Conductors allow energy to pass through	Insulators stop or slow down energy
Electrical	Metals e.g. copper, silver, gold, iron, steel, aluminum tap water 	rubber wood plastic glass paper cotton 
Thermal	Metals e.g. copper, silver, gold, iron, steel, aluminum 	plastic wood rubber fabric polystyrene 

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Electrical Conductors and Insulators

Conductors



Insulators

