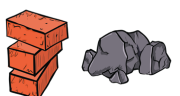




Key Facts

What I should already know

Compare and group materials together, according to whether they are solids, liquids or gases.

Solid	Liquid	Gas
<ul style="list-style-type: none"> stay in one place keep their shape do not flow always take up the same amount of space do not spread out can be cut or shaped 	<ul style="list-style-type: none"> can flow or be poured not easy to hold change their shape to fit the container they are in take up the same amount of space volume stays the same 	<ul style="list-style-type: none"> often invisible do not keep shape do not take up the same amount of space can change shape and volume can be squashed 



Materials

All materials exist in 3 states

Materials can be compared and grouped together on the basis of their properties including:

- Hardness – how hard or soft a material is
- Solubility – whether a material can dissolve
- Transparency – whether it allows light to pass through
- Conductivity (electrical or thermal) – whether it allows heat or electricity to carry through
- Magnetism – whether it can attract to magnets

Materials can be natural or manufactured.

Natural	Manufactured
<p>A natural material is a product that comes from plants, animals, or the ground</p> 	<p>A manufactured material is made from natural materials using chemical processes</p> 

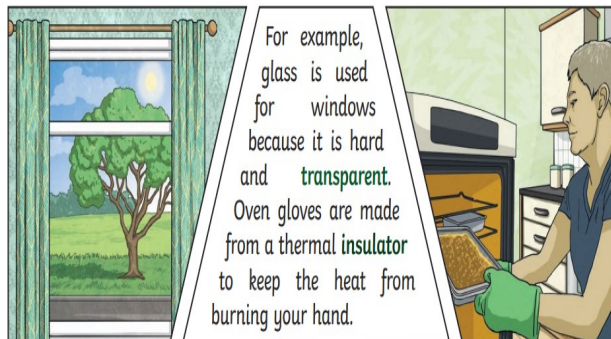


Year 5 Science

Properties of Materials

Science strand: Chemistry

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.

Vocabulary

Word	Definition
Conductor	A material that allows heat or electricity to pass through easily.
Insulator	A material that does not allow heat or electricity to pass through easily
Transparent	Able to see through it.
Hardness	The quality of being hard.
Insoluble	Incapable of being dissolved.
Comparative test	A test that <i>requires you to test and compare different materials or objects</i>
Property	The qualities which a material possesses which may suit it to specific purposes
Opaque	An object that does not allow light to pass through it.
Hardness	<i>A measure of how resistant solid matter is to permanent shape change .</i>
Liquid	a form of matter that flows easily and is neither a solid nor a gas.
Solid	Solids are objects that keep their own shape and do not flow in a given temperature.