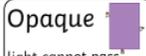
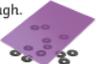


Recapped Knowledge

Different materials have different properties which means they behave in different ways and are good for different jobs.

| | | |
|---|--|---|
| <p>Hard not easily broken or pierced.</p>  | <p>Soft easy to mould, squash, pierce, fold or cut.</p>  | <p>Opaque light cannot pass through so you cannot see through.</p>  |
| <p>Some light can pass through.</p>  <p>Translucent</p> | <p>All light can pass through so you can see through it.</p>  <p>Transparent</p> | <p>Allows water to pass through.</p>  <p>Permeable</p> |
| <p>Does not allow water to pass through.</p>  <p>Impermeable</p> | <p>Attract to a magnet - metals that contain iron.</p>  <p>Magnetic</p> | <p>Not attracted to a magnet.</p>  <p>Non-magnetic</p> |
| <p>Allow electricity to pass through.</p>  <p>Electrical Conductors</p> | <p>Does not allow electricity to pass through.</p>  <p>Electrical Insulators</p> | |

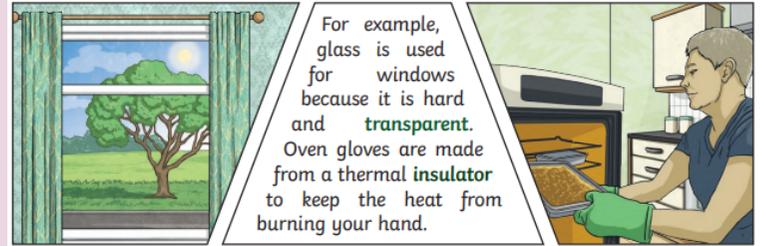
New Vocabulary

| | |
|--------------------------|--|
| properties | The qualities a material possesses which may suit specific purposes—eg umbrellas are made from a waterproof or impermeable material. |
| thermal | To do with temperature—heat. |
| thermal energy | Heat energy. |
| thermal insulator | Stops or slows down the transmission of heat. |
| thermal conductor | Allows heat energy to pass. |
| Attract | Attraction is a force that pulls objects together. |
| Contact force | Forces that are applied by touching an object e.g. kicking a football. |
| Non-contact force | Forces that are applied at a distance e.g. magnetic forces. |

New Knowledge:

Key Knowledge

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



Working Scientifically

- Draw your own Venn Diagrams.
- Use and develop keys for describing materials.
- Make their own decisions about what observations to make, what measurements to use and how long to make them for
- Choose the most appropriate equipment
- Decide how to record data
- Write a detailed conclusion.
- Identify any limitations that reduce the trust they have in their data.



| Properties | Yes | No |
|------------------------------|---|---|
| Electrical Conductors | Metals—including copper, silver, gold, iron, steel and aluminium. | Plastic, rubber, wood, glass, paper, cotton, fabric, cork. |
| Thermal Conductors | Metals—including copper, silver, gold, iron, steel and aluminium. | Plastic, rubber, wood, fabric, polystyrene |
| Magnetic | Some metals: iron, nickel, steel, cobalt | Plastic, rubber, wood, paper, cork, and metals that don't contain iron. |
| Hard | Wood, diamond, granite, concrete, glass, some metals and plastics | Chalk, blu tack, fabric, rubber |
| Soluble | Salt, sugar, coffee | Sand, pepper, glitter |
| Transparent | Glass, some plastics, water | Metals, rubber, cork, |
| Permeable | Fabric, paper, chalk, sponge | Plastic, metal, glass, blu tack |