



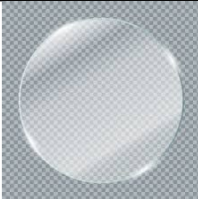






Year 5 Autumn Term 1- Properties and Changes of Materials

What different properties do materials have and how can you change them?

<p>KQ1 How many properties do materials have?</p>  <p><small>Captain Classify</small></p>	<p>Different materials are used for particular jobs based on their properties.</p>	<p>Material, property, magnetic, hard, transparent, flexible, permeable.</p>
<p>KQ2 Why is the material an object is made from useful?</p>	<p>Different materials are used for particular jobs based on their properties.</p>	
<p>KQ3 Can you create a key to sort and group different materials?</p>  <p><small>Captain Classify</small></p>	<p>Different materials are used for particular jobs based on their properties.</p>	
<p>KQ4 Are all metals magnetic?</p>  <p><small>Scarlet Spy</small></p>	<p>Magnetic materials are always made of metal, but not all metals are magnetic.</p>	<p>Magnetic, non-magnetic</p>
<p>KQ5 How can we keep our lunch cool?</p>	<p>A conductor is a material that heat can easily travel through. Most metals are thermal conductors (they conduct heat).</p> <p>An insulator is a material that does not let heat travel through them. Wood and plastic are both thermal insulators.</p>	<p>Thermal, conductor, insulator, heat, material, variable</p>
<p>KQ6 How can we keep our tea warm?</p>  <p><small>Freddie Fair</small></p>	<p>A conductor is a material that heat can easily travel through. Most metals are both thermal conductors (they conduct heat).</p> <p>An insulator is a material that does not let heat travel through them. Wood and plastic are both thermal insulators.</p>	

<p>Transparent</p>	<p>Transparent means an object allows light to pass through it so clearly that you can see right through it, like looking through a window. You can see objects on the other side without the material blocking your view.</p>	
<p>Flexible</p>	<p>Flexible means being able to bend easily without breaking, like a rubber band or a straw.</p>	
<p>Permeable</p>	<p>Permeable means something has tiny holes or spaces that allow liquids or air to pass through it, like a sponge or a sieve. It's the opposite of "impermeable," which means something doesn't let things pass through, like a plastic bag.</p>	
<p>Thermal</p>	<p>Thermal basically means anything related to heat or warmth. It can describe something that produces or uses heat, or it can refer to heat itself. Thermal energy is also the energy within an object that causes it to be hot.</p>	
<p>Conductor</p>	<p>A conductor, in science, is something that allows electricity or heat to easily pass through it. Imagine a material that lets electricity flow like a river flowing downhill - that's a conductor. Metals like copper and iron are good conductors.</p>	
<p>Insulator</p>	<p>An insulator is something that doesn't let heat or electricity pass through it easily. It's like a barrier that keeps things contained. Think of it as a closed door for energy.</p>	