

Working Scientifically Skills



WHO?

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Year 1 and 2 Materials

Chemistry



Vocabulary			
<b>materials</b>	The substance that something is made out of e.g. wood, plastic and metal.	<b>magnetic</b>	Objects are attracted to metals,
<b>conductor</b>	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).	<b>permeable</b>	Will allow liquids and gases to pass through it.
<b>insulator</b>	An insulator is a material that does not let heat or electricity travel through them. Wood and plastic are both thermal and electrical insulators.	<b>absorbent</b>	Able to soak liquids easily.

WHAT?

Any **substance** that is used to make something is a **material**.

**Natural materials:** stone, wood and cotton.

**Synthetic/man-made:** plastics and polyester.

**Absorbency:** the ability of the material to soak up water.

**Malleability:** the ability to bend and shape the material.



1



3



The **properties** of a **material** must be considered when creating a **shelter**.

An **absorbent** material will **soak up** liquid easily.

**Solubility** is the ability to **dissolve**. The **hardness** of a **material** must be considered when deciding its **purpose**.



2

**Plug** heads have **metal rods** which are used to **conduct electricity**.

A **whiteboard** is made of **plastic** and **metal** so whiteboard pen can be **erased** easily.

The **legs** on a **chair** are made of **metal** because it is **sturdy** and **not flexible**.

A **sponge** is **absorbent** so that water can be absorbed.

A **thermal conductor** lets **heat pass through** easily  
A **thermal insulator** is a **poor conductor** of heat.  
**Fleece** is a **good conductor** of heat.



4

**Foil** is a **good insulator**.