Key Vocabulary:

Natural – Materials that are naturally found or grown they come from plants, animals or rocks e.g. silk, wool and wood

Synthetic – Materials that are artifically made, usually through a chemical process e.g. nylon, polyethylene, polyester and Teflon

Magnetism – Magnetism is a force that can attract (pull closer) or repel (push away) objects that have a magnetic material like iron inside them

Hardness– Resistance to scratching and pressure, opposite to softness

Transparent – A material that allows light to pass through it

Flexibility – A material that can bend easily without breaking

Permeability – Permeability is the property of a material to allow fluids (such as water, water vapor or oil) to soak or pass through it

Conductors & Insulators A material that readily transmits energy is a conductor, while one that resist energy transfer is called an insulator.

Thermal conductor – Thermal conductivity is the property of a material that measures how well it can conduct heat. Metals are typically good conductors.

Thermal insulator – Insulators are materials which do not conduct heat very well

Absorbency – The ability to soak up a liquid, absorb and retain the moisture within its structure

Waterproof – Resistance to liquid, repels water

Properties – The properties of materials include any traits that can be observed or measured, such as colour, hardness, odour, permeability, boiling and melting points etc

Holy Family Halewood

Year 5 & 6 Science

Properties of Materials

Learning Objectives:

- Understand the difference between natural and synthetic materials
- Compare and group together everyday materials on the basis of their properties
- Test materials for magnetism, hardness, transparency, flexibility and permeability
- Sort and classify materials according to their properties
- Learn about thermal conductors and thermal insulators
- Investigate which materials would be best suited for a lunch box by testing thermal insulating materials

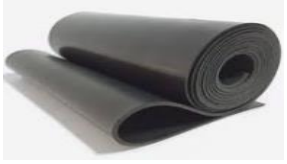
Thermal Conductors:

Thermal Conductors:

Thermal Insulators:

Thermal Insulators:

Rubber



Wood

Fabric