

Working scientifically

Ask simple questions and recognise they can be answered in different ways

Observing closely using, simple equipment

Perform simple tests

Identifying and **classifying**

Use **observations** and ideas to suggest answers to **questions**

Gathering and **recording data** to help in answering questions

What I should already know:

- ◆ Distinguish between an object and the **material** from which it is made
- ◆ Identify and name a variety of everyday **materials**, including **wood, plastic, glass, metal, water, and rock**
- ◆ Describe the simple physical **properties** of a variety of everyday **materials**
- ◆ Compare and group together a variety of everyday **materials** on the basis of their simple physical **properties**.

What I will know by the end of the unit

We use different **materials** for different objects depending on their purpose.

Materials are used for more than one thing (e.g. **metal** can be used for coins, cans, cars and table legs.

Think about unusual and creative uses for everyday materials.

Changing the shape of a **material** can be done by:

Squashing is to crush something so that it becomes flat, **soft**, or out of shape.

Bending is to change a straight object so that it is curved.

Twisting is to change the shape of an object by turning it.

Stretching is to make an object longer or wider without tearing or breaking.

Investigate

There are many ways of reducing **greenhouse gases** caused by human activities.

These include:

- ◆ generating electricity from renewable sources
- ◆ Using cars less
- ◆ buying and wasting less

Properties of different materials

Wood	strong, opaque, stiff, hard
Plastic	bendy, smooth, translucent, stretchy
Glass	transparent, hard, smooth, waterproof
Brick	rough, strong, opaque, dull
Paper	translucent, flexible, not waterproof
Cardboard	rough, dull, opaque, not waterproof
Metal	Shiny, strong, opaque, hard
Rock	Rough, strong, opaque, hard

Key vocabulary

Global Warming	The gradual increase in surface temperature of the Earth.
Fossil Fuel	Remains of dead organisms that are burnt as fuels releasing carbon dioxide.
Greenhouse effect	When energy from the sun is transferred to the thermal energy store of gases in the Earth's crust.
Atmosphere	A material which allows light to pass through but is not clear
Climate Change	A material which does not allow light to pass.