# Coley Primary School – Knowledge Organiser

| SUBJECT FOCUS: Chemistry Strand | Science: Everyday materials | YEAR 2 | TERM 4 |
|---|---|---|---|

## WHAT? – Key Knowledge

- Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses
- Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching
- Use scientific language: say, read and spell scientific vocabulary

### Properties of Different Materials

| | | |
|---|---|---|
| **Wood**<br><br>Hard, stiff, strong, **opaque**,. | **Glass**<br><br>Waterproof, **transparent**, | **Plastic**<br><br>Waterproof, strong, **Opaque** |
| **Paper**<br><br>Not waterproof **Translucent** | **Metal**<br><br>**Strong, Opaque** | **Cardboard**<br><br>Not waterproof, **opaque** |
| **Rubber**<br><br>**Opaque**, waterproof. | **Rock**<br><br>Rough, strong, **Opaque**, hard | |

## Working Scientifically Challenge:

- Distinguish between an object and the material from which it is made.
- Can they identify and name a range of everyday materials? (wood, plastic, metal, water, rock)
- Can they describe the simple physical properties of a variety of everyday materials?
- Can they compare and classify a variety of materials based on their simple physical properties?

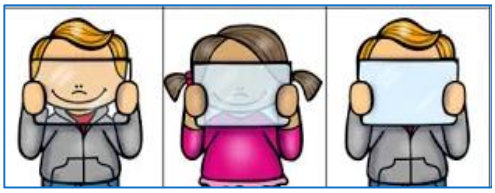
## *I wonder…*

**Challenge:**

- Can they explain how materials are changed by heating and cooling?
- Can they tell which materials cannot be changed back after being heated, cooled, bent, stretched or twisted?
- Can they explain how materials are changed by bending, twisting and stretching?

## WHAT? – Key vocabulary

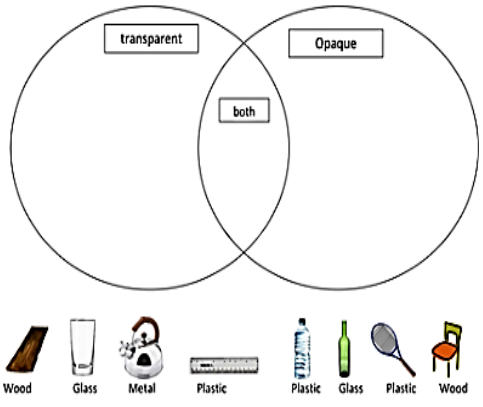
| | |
|---|---|
| **Opaque** | A material which does not allow light to pass. |
| **Transparent** | Objects behind can be seen clearly. |
| **Translucent** | A material which allows light to pass through but is not clear. |



**Transparant** **Transluscent** **Opaque**

## Diagrams and symbols

### Group materials




## Possible experiences: *Curious minds…:*

- ***Change it:*** Change the shape of an object, take pictures of the object before and after. These could be displayed for others to try and guess the technique used to change the shape of eth object.
- ***Guess it:*** Change the shape of an object, take pictures and ask others to guess the object which has been changed.
- **Materials** (Fact Cat: Science), by Izzi Howell (Author)