

Uses of Everyday Materials - Year 2 - Unit 2

Scientific Enquiry



comparative & fair testing

Comparative tests compare things in order to rank them. **Fair tests** look for changes when one variable is changed. We will test the properties of materials such as wood, metal, plastic, fabric, paper and cardboard for a particular use, such as comparing the stretchiness of fabrics for Elastigirl's suit and choosing the best material for a rain hat.



identifying & classifying

Identifying means knowing what something is and naming it. **Classifying** means grouping things together if they have something in common. We will **identify** and **classify** materials based on different properties for example grouping opaque or absorbent materials together.

Working Scientifically

Asking scientific questions
Planning an enquiry
Observing closely
Taking measurements

Gathering and **recording** results
Presenting results
Interpreting results

Suitable means appropriate for a specific purpose. All objects are made of one or more materials that are chosen specifically because they have **suitable** properties for the task. For example, some water bottles are made of plastic because it is transparent allowing you to see the drink inside and waterproof so that it holds the water.



Objects made of some materials can be changed in shape by bending, stretching, squashing and twisting.

Flexible means a material is able to bend easily without breaking. Rubber is flexible and is **suitable** for tubes or wire casing that need to bend.



rigid

Rigid means the opposite of **flexible** - a material that does not bend easily and cannot be reshaped without using a lot of force.



In Year 1, you distinguished between an object and the material from which it is made. You identified and named a variety of everyday materials, including wood, plastic, glass, metal, water and rock. You also described the simple physical properties of a variety of these materials. You compared and grouped together a variety of everyday materials on the basis of their simple physical properties.

Subject Specific Vocabulary

suitable

flexible

absorbent

opaque

translucent



waterproof

A **waterproof** material keeps water and other liquids out.



Plastic and rubber are examples of waterproof materials and may be **suitable** for making items such as umbrellas and rain jackets.

An **opaque** material does not let any light through. Materials such as stone and wood can be opaque. They would be **suitable** for making a garden fence. It can't be seen through.



transparent

Transparent means the opposite of opaque. All of the light is let through the object. Windows are usually made of **transparent** glass so people can see out.

Translucent means allowing some of the light through an object. A **translucent** material would be **suitable** for items such as sunglasses, which need to keep some light out to protect our eyes.



Other examples of **translucent** objects include some windows, thin tissue paper and cooking oil.



Things you learnt in previous topics

How this connects with future learning

In Year 3, you will compare and group together different rocks on the basis of their appearance and simple properties. You will notice that some forces need contact between two objects, but magnetic forces can act at a distance. In Year 5, you will compare and group together everyday materials based on their properties such as solubility, conductivity and transparency. You will give reasons for the particular uses of everyday materials based on evidence from fair and comparative tests.