

## Everyday Materials

### Sycamore – Year 1 Content

#### Pupils will be taught to

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.

Pupils should also explore, name and raise and answer questions about everyday materials so that they become familiar with the names of materials and properties such as: hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent.

Pupils will explore and experiment with a wide range of materials.

#### Pupils will know by the end of the topic:

Glass is used for windows in houses and cars to see through.

Mirrors are used to see yourself – for reflection.

Metal is used for strength in construction of planes, cars and trains and especially tall buildings.

Plastic is moulded or shaped to form any shape.

A material is what something is made from.

Materials can be natural or man-made.

Glass is made from very fine sand. It is heated until it melts.

Plastics are a man-made material, mostly made from oil.

A glass bottle could take 1 million years to decompose (break down).

A plastic bottle will take 450 years to decompose (break down).

Natural rubber is made from a runny, milky liquid called latex, which comes from some plants. Most of the world's natural rubber comes from the rubber tree.

Some solids can be hammered or squashed into many different shapes without breaking. They are known as malleable materials.

Other solids; such as biscuits or glass, will not bend when hammered or squashed, but will break and split. These materials are brittle.

Wood, paper and cardboard are all made from trees.

Leather comes from cow skin.

Wool comes from sheep.

Cotton comes from plants.

Durable means long lasting.

All materials have physical properties. A physical property is one that a person can measure without changing the material. Colour, amount, hardness and temperature are examples of physical properties.

## Uses of Everyday Materials – Sycamore

### Year 2 Content

Pupils will be taught to;

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.

Pupils will also identify and discuss the uses of different everyday materials so that they become familiar with how some materials are used for more than one thing (metal can be used for coins, cans, cars and table legs; wood can be used for matches, floors and telegraph poles) or different materials are used for the same thing (spoons can be made from plastic, wood, metal, but not normally from glass).

They will think about the properties of materials that make them suitable or unsuitable for particular purposes and they will be encouraged to think about unusual and creative uses for everyday materials.

Pupils will work scientifically by: comparing the uses of everyday materials in and around the school with materials found in other places, observing closely, identifying and classifying the uses of different materials, and recording their observations.

### Pupils will know by the end of the topic:

Wood is used to make buildings and furniture and for making fires and heating.

Most of the paper or cardboard we use come from trees.

Glass is a hard material that can be made in many shapes.

Glass is usually transparent, which means you can see through it, but can also come in different colours.

Glass is often used to make windows and bottles.

When heated, metals can be shaped into anything from a tiny paperclip to a huge aircraft.

Squashing and pushing things closely together.

Bending is changing the shape and direction of something.

To twist something, you move part clockwise and the other part anti-clockwise.

Stretching is making something bigger by pulling it to make it longer.

Metals are strong, hard and they can conduct heat and electricity very well.

To recycle is to use again or to reuse waste material by converting it into something new.

Frosted glass is translucent.

A translucent material lets light pass through, but objects on the other side can't be seen clearly.