



# Materials

Year 2

## Knowing More, Remembering More

### Remembering previous learning

**What are rocks?** Rocks come in different shapes, sizes and textures.

**What are rocks used for?** Rocks can be used to build things, such as walls or buildings.

**What is ice?** When water freezes, it turns to ice.

**What is water?** When ice melts, it turns to water.

**What is floating?** When materials stay at the top of the water.

**What is sinking?** When materials fall to the bottom of the water.

### In this unit children will:

- 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

### Working Scientifically:

- 2.1 Ask simple questions and recognise that they can be answered in different ways.
- 2.6 Observe closely, using simple equipment.
- 2.7 Perform simple tests using standard units when appropriate.
- 2.9 Identifying and classifying.
- 2.12 Use their observations and ideas to suggest answers to questions.

### Key Learning Steps

1. Explore materials
2. Wood, paper, cardboard
3. Brick and rock
4. Glass and plastic
5. Metal
6. Fabrics
7. Same object, different material
8. Test materials - bend, squash, twist and stretch
9. Plan - waterproof experiment
10. Investigate - waterproof experiment

### Key Vocabulary:

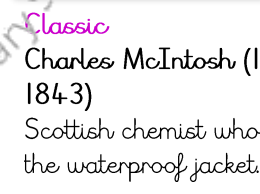
- material
- natural
- man-made
- recycle
- smooth
- rough
- flexible
- rigid
- rock
- stone
- brick
- pebble
- brittle
- transparent
- translucent
- opaque
- hard
- shiny
- dull
- fabric
- strong
- light
- tough
- lightweight
- soft
- squishy
- bend
- twist
- stretch
- independent variable
- dependent variable
- controlled variable
- waterproof
- breakable

### Key Scientists



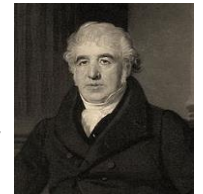
#### Classic

**Charles Goodyear (1800 - 1860)**  
American chemist who developed vulcanised rubber.



#### Classic

**Charles McIntosh (1766 - 1843)**  
Scottish chemist who invented the waterproof jacket.



## Knowing More, Remembering More

### Knowing more in Y2

**What are natural materials?** These have not been made and can be found naturally, such as sand, wood and wool.

**What are human-made materials?** These are not natural and have been made, such as plastic and cardboard.

**What are recyclable materials?** These are materials that can be used again, such as wood, paper and cardboard.

**Where does wood come from and what is it used to make?** Wood comes from trees and is used to make paper/cardboard.

**What is a rock?** Rocks are a natural material found on and underneath the Earth's surface.

**What is a stone?** A stone is a small rock.

**What is a pebble?** A pebble is a small smooth rock, shaped by water.

**What is a brick?** Bricks are human-made and used to build things.

**What is glass like?** It is hard and brittle. It can be recycled.

**What is plastic like?** It can be flexible or hard. It can be recycled.

**What does opaque mean?** You cannot see through it.

**What does translucent mean?** You cannot see through it clearly.

**What does transparent mean?** You can see through it easily.

**What is metal like?** Some metals are flexible and change shape; some cannot change shape easily.

**What is fabric like?** Fabrics can be natural or human-made.

**What are materials like?** Some can change shape and some cannot. Some can be bent, twisted, squashed or stretched.