

# Science-Properties of materials

## 1 Match the words to the definitions.

strong	you can bend it
flammable	you can burn it
transparent	water can't go through it
flexible	you can see through it
waterproof	you can't break it easily

## 2 Tick the chart.

	strong	flammable	transparent	flexible	waterproof
paper		✓		✓	
wood					
glass					
leather					
cotton					
metal					

## 3 Complete the sentences.

- Leather is more waterproof than cotton. (waterproof)
- Wood is \_\_\_\_\_ than paper. (strong)
- Glass is \_\_\_\_\_ than paper. (transparent)
- Paper is \_\_\_\_\_ than metal. (flexible)
- Cotton is \_\_\_\_\_ than paper. (strong)
- Leather is \_\_\_\_\_ than wood. (flexible)

## 4 Answer the questions.

flexible   transparent   strong

- Why do we make windows from glass?  
Because it is \_\_\_\_\_.
- Why do we make shoes from leather?  
Because it is \_\_\_\_\_.
- Why do we make chairs from wood?  
Because it is \_\_\_\_\_.

## Subject: Science

### Properties of materials

**Objective:** Properties of materials

**Vocabulary:** paper, wool, glass, leather, cotton, metal, strong, flammable, transparent, flexible, waterproof

#### Introduction

In order to assess which materials are suitable for different man-made objects, it is important to be aware of the properties of the materials. The properties chosen for study in this worksheet are among the easiest to demonstrate.

#### Warm up

- Help pupils reflect on the selection of materials for different objects. Ask: *Can you make a table from paper? Why not?*
- Repeat with different objects, for example: *Can you make a shirt from glass?* etc.

#### Activity 1

- Read the list of properties out loud.
- Pupils match the adjectives to the definitions.
- Ask pupils to read the adjectives with their definitions out loud.

**Answer key** strong – you can't break it easily; flammable – you can burn it; transparent – you can see through it; flexible – you can bend it; waterproof – water can't go through it

#### Activity 2

- Ask questions about different materials and properties: *Is metal transparent? Is metal strong?* etc.
- Pupils complete the table.
- Ask volunteers to summarise the table. S1: *Paper is flexible and flammable.*

**Answer key** paper: flexible, flammable; wood: strong, flammable; glass: transparent, waterproof; leather: strong, flexible; cotton: strong, flammable, flexible; metal: strong, waterproof

#### Activity 3

- Compare the materials. T: *Is cotton more flexible than wood?* etc.
- Pupils complete the sentences.
- Ask pupils to read the sentences out loud.

**Answer key** 1-more waterproof; 2-stronger; 3-more transparent; 4-more flexible; 5-stronger; 6-more flexible

#### Activity 4

- Pupils complete the sentences.
- Ask pupils to read the sentences out loud.

**Answer key** 1-transparent; 2-flexible; 3-strong

#### Project ideas

- In pairs, pupils choose a material and list the objects in the classroom made from that material.
- Pupils choose an everyday object and list the materials. They analyse why the materials used are appropriate.