

Materials

Big Idea 13: Knowledge found in science is used in engineering and technologies to create products for humans to use.

Our Inspirational Scientist: Charles Macintosh



Intent

This term, we will learn to recognise that all objects are made of one or more materials. We will explore how some materials are suited to particular purposes but that that some objects can be made from different materials but still work. We will learn to describe materials by their properties and start to recognise that some materials can come in different forms with different properties such as plastic.

These are the key skills and knowledge you will gain through this unit:

Scientific Knowledge	• 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
Working Scientifically	• Observe the natural and humanly constructed world around us • Use tables to record data • Begin to notice patterns and relationships with support • Begin to draw simple conclusions • Use simple features to compare.

Key Vocabulary

Object,	foil,	absorbent,
material,	card/cardboard,	break,
wood,	rubber,	tear,
plastic,	wool,	rough,
glass,	clay,	smooth,
metal,	hard,	shiny,
water,	soft,	dull,
rock,	stretchy,	see-through,
brick,	stiff,	not see-through
paper,	bendy,	
fabric,	floppy,	
elastic,	waterproof,	

Developing scientific thinking

This unit supports the following elements in particular:

- Asking simple questions and recognising that they can be answered in different ways
- Performing simple tests
- Observing closely, using simple equipment
- Identifying and classifying
- Using their observations and ideas to suggest answers to questions
- Gathering and recording data to help answer questions

Scientific Enquiries in this unit:

Comparative / fair testing – Which materials is the hardest?

Research – What did Charles Macintosh invent?

Observation over time – How does our tree change through the year?

Pattern seeking – What materials are used for what jobs?

Identifying, grouping and classifying – Can you sort the materials into their different properties?

Problem solving – Can we make a shelter for Martha the snail?

English Links

Create a mini book with objects labelled with their materials.

Maths links

Estimating height

Other Curriculum Links

Tree of Life art work - <https://images.app.goo.gl/CeiHYrRK46R6Q8LW7>