

Scientist



William Addis
(inventor of the toothbrush)



Dr Pearl Agyakwa
(Materials scientist)

Skills

I'm performing simple tests like a materials scientist.



Careers

Materials scientist
(researches structures and properties of materials)

Enquiries



Which materials are the most absorbent?

Compare and fair testing

What happens to materials over time if we bury them in the ground?



Observation over time



Pattern making

Is there a pattern in the types of materials that are used to make objects in a school?

Which materials will float and which will sink?



Learning, classifying and grouping



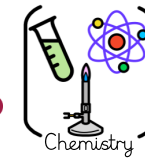
Research using secondary sources

Which materials can be recycled?

Y1 EVERYDAY MATERIALS



Main idea



Pupils will learn all about different materials that objects are made of. They will begin to differentiate between natural and manmade materials and be able to suggest why a material was selected depending on the function of the object.



Key Learning

- Pupils will be taught to distinguish between an object and the material from which it is made.
- They will learn to identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock and discuss their properties.
- Some will be able to describe the simple physical properties of a variety of everyday materials.
- Children will compare and group together a variety of everyday materials on the basis of their simple physical properties.

What you should already know

That objects are made of different substances, and these are called materials.

Name some materials such as plastic, paper and wood.

Describe the properties of materials using simple adjectives such as hard and soft.

What comes next?

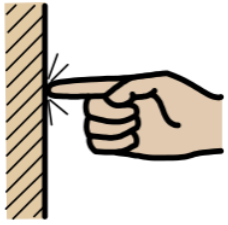
Year 2: Explore in more depth why materials are chosen for certain purposes.

Experiment with changing the shapes of solids.

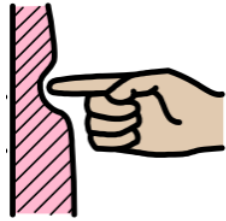
Key vocabulary

Hard	Bendy
Soft	Rigid
Stretchy	Waterproof
Stiff	Absorbent
Shiny	Opaque
Dull	Transparent
Smooth	Materials

Year 1: Everyday Materials



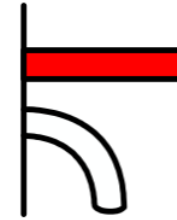
Hard: not soft, cannot change shape easily



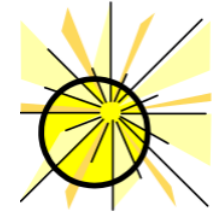
Soft: easy to bend or shape; not hard



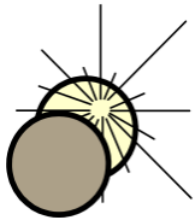
Stretchy: capable to be stretched or pulled longer



Stiff: not stretchy



Shiny: reflecting or glowing with light



Dull: not shiny



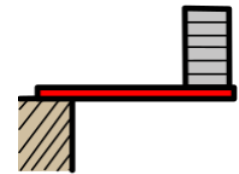
Rough: having an uneven surface; not smooth



Smooth: not rough, has an even surface



Bendy: can flex in shape to a curve



Rigid: not bendy or stretchy



Waterproof: not letting water through, not absorbent



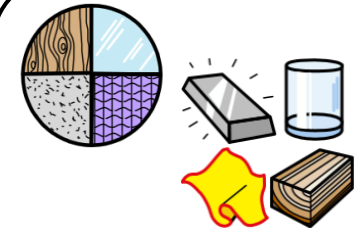
Absorbent: able to soak in liquid or moisture



Opaque: not letting light pass through

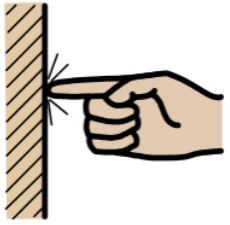


Transparent: letting light pass through; gives a clear view of objects on the other

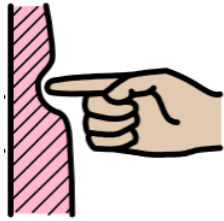


Materials: paper, plastic, stone, leather, wood, metal, cotton, glass

Year 1: Everyday Materials



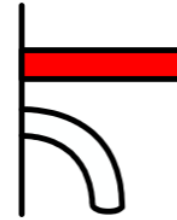
Hard



Soft



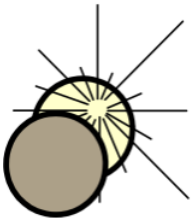
Stretchy



Stiff



Shiny



Dull



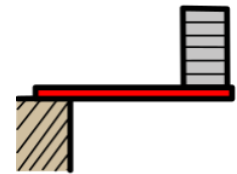
Rough



Smooth



Bendy



Rigid



Waterproof



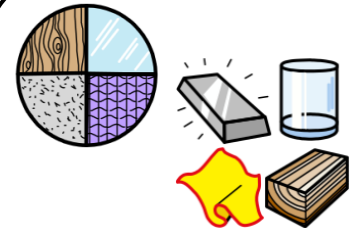
Absorbent



Opaque



Transparent



Materials