

HAWTHORN PARK COMMUNITY PRIMARY SCHOOL

Where Care and Learning Count

Headteacher: Mrs Jeni Houghton

Science Knowledge Organiser

Area: Everyday Materials

Year Group: 1

Statutory guidance:

By the end of this unit pupils will be able 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.

Notes and guidance (non-statutory)

Pupils should explore, name, discuss 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 should explore and experiment with a wide variety of materials, not only those listed in the programme of study, but including for example: brick, paper, fabrics, elastic, foil.

Pupils might work scientifically by: performing simple tests to explore questions, for example: 'What is the best material for an umbrella?... for lining a dog basket?... for curtains?... for a bookshelf?... for a gymnast's leotard?'

Key Vocabulary

1. object	A thing that can be used, for example a door, chair, car and a table are all objects.
2. material	Materials are what an object is made from.
3. hard	Not easily broken or bent.
4. soft	If something is soft, it is easy to cut, fold or change the shape of.
5. stretchy	Can be pulled to make it longer or wider without breaking.
6. shiny	Reflects light easily.
7. dull	Doesn't reflect light, and doesn't look bright or shiny.
8. rough	If something is rough, it feels and looks uneven or bumpy.
9. smooth	Smooth objects have no lumps or bumps.
10. bendy	Bendy objects can be folded easily.
11. not bendy	If something is not bendy, it can't be folded easily.
12. waterproof	If something is waterproof, it keeps water out and keeps things dry.
13. not waterproof	Not waterproof materials let water in.
14. absorbent	If something is absorbent, it soaks water up.
15. not absorbent	If something is not absorbent, it does not soak up water.
16. transparent	Transparent objects can be seen through.
17. opaque	Opaque objects can't be seen through.

Key Assessment Questions

- Can they distinguish between an object and the material from which it is made?
 Can they describe materials using their senses, using specific scientific words?
 Can they explain what material objects are made from?
 Can they explain why a material might be useful for a specific job?
 Can they name some different everyday materials? e.g. wood, plastic, metal, water and rock
 Can they sort materials into groups by a given criteria?
 Can they explain how solid shapes can be changed by squashing, bending, twisting and stretching?
 Can they perform a simple test?
 Can they tell other people about what they have done?
 Can they talk about what they 'see, touch, smell, hear or taste'?
 Can they use simple equipment to help them make observations?
 Can they identify and classify things they observe?

Greater Depth:

- Can they describe things that are similar and different between materials?
 Can they explain what happens to certain materials when they are heated, e.g. bread, ice, chocolate?
 Can they explain what happens to certain materials when they are cooled, e.g. jelly, heated chocolate?