

EVERYDAY MATERIALS

INTRODUCTION

This module introduces children to a range of basic materials and their properties. In lessons 1–6 they learn to name and identify wood, plastic, metal, glass, rock, brick, water and other materials, many of which will be familiar to them. They understand that these materials can be made into many different objects, from spoons made of plastic, wood or metal or any combination of the three, to more complex objects. They learn to distinguish between an object and the material from which it is made, and to define an object as, for example, a wooden spoon or plastic cup, by the material from which it is made. They recognise that the same material can be made into different objects, for example, a metal can, a metal spoon and a metal car. In the second half of the module use touch and sight to identify a number of simple properties of materials, and test materials such as paper and fabric to compare their properties. In the extension lessons children choose materials to decorate a picture frame based on their different observable properties, and compare the properties of liquid water with frozen ice.

National Curriculum:

To identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock

To distinguish between an object and the material from which it is made

To describe the simple physical properties of a variety of everyday materials

To compare and group together a variety of everyday materials on the basis of their simple physical properties

Working Scientifically:

Identifying and classifying

Observing closely using simple equipment

Performing simple tests

Using observations and ideas to suggest answers to questions

Gathering and recording data to help in answering questions

Performing simple tests

Scientific Enquiry:

Grouping and classifying

Carrying out simple comparative and fair tests

Key vocabulary:

materials, wood, wooden, plastic, metal, glass, water, rock, brick, paper, writing, wrapping, shiny, drawing, display, greaseproof, kitchen towel, handkerchief, wallpaper, sand paper, fabric, wool, nylon, silk, fleece fibre, properties, hard, soft, fluffy, rough, smooth, shiny, dull, light, heavy, transparent (see-through), opaque (can't see-through), translucent (see something through), harder, lighter, rougher, stretch, stretchy, elastic, stiff, bend, bendy, not bendy, press, squash, twist, shape, waterproof, absorb, absorbent, soak up, mop up; frozen, freeze, melt, salt, tissue paper, button, glass bead, marble, pebble, pasta

FACT FILE:

Everything around us and that we use is made of some form of material. All materials come from animals or plants, are dissolved in the sea or are mined from the ground. Today some materials are artificially made in commercial chemical plants. Some of these materials are used as they are and others are altered to make new, manufactured materials.

For this module the basic classification can be shown as:

Natural: rocks, soil, water, wood

Manufactured: metals, plastic, glass, rubber, paper, fabrics, bricks

Natural materials can be identified in the physical environment – soil, rocks and water – or the biological environment – wood.

Manufactured materials have been processed in some way from raw materials, for example, metals are processed from the refining of metal ores, paper is produced from wood pulp and

fabrics are produced from plant and animal fibres. Other materials are produced from the chemicals extracted from natural materials, for example, plastics.

The properties of materials that Year 1 children experience are largely based on their direct sensory experience of the materials, how they feel and how they look. They look for similarities and differences, and make comparisons, for example, smoother, harder, shinier, etc.