Science - Year Two - Term 1

Identify and compare the suitability of Everyday Materials

Explore how materials can change shape by squashing, bending, twisting and stretching.

Other important information

Identify and discuss the uses of different everyday materials	Become familiar with how some materials are used for more than one thing (metal can be used for coins, cans, cars and table legs; wood can be used for matches, floors, and telegraph poles) or different materials are used for the same thing (spoons can be made from plastic, wood, metal, but not normally from glass).
Properties of materials	What makes them suitable or unsuitable for particular purposes and they should be encouraged to think about unusual and creative uses for everyday materials.
Pupils work scientifically	Comparing the uses of everyday materials in and around the school with materials found in other places, observing closely, identifying and classifying the uses of different materials, and recording their observations.

Key Facts

- To understand how everyday materials can be used for more than one thing.
- To understand how different everyday materials can be used for the same thing.
- To understand why the properties of materials make them suitable or unsuitable for particular purposes.
- To recognise that squashing, bending, twisting and stretching can change the shapes of solid objects made from some everyday materials.

Key Features/Knowledge Skills

Ask simple questions	Pupils explore the world around them and raise their own questions. They should ask people questions and use simple secondary sources to find answers.
Observing closely, using simple equipment	They should experience different types of scientific enquiries, including practical activities and make careful observations over time. With guidance, they should begin to notice patterns and relationships.
Performing simple tests	They should use simple measurements and equipment (for example, hand lenses, egg timers) to gather data, carry out simple tests, record simple data, and talk about what they have found out and how they found it out.
Identifying and classifying	They should use simple features to compare objects, to identify a variety of materials and sort them according to a variety of criteria. To be able to identify natural and manmade materials.
Using observations/ ideas to suggest answers to questions.	Begin to recognise ways in which they might answer scientific questions from their observations. With help, they should record and communicate their findings in a range of ways and begin to use simple scientific language.
Gathering and recording data to help answer questions.	That data can be used to classify information and present findings. Begin to compare and contrast findings to make judgements. Collect appropriate data and record as notes, diagrams, labels, charts etc…

Vocabulary

Shape	A geometric figure such as a square, triangle or rectangle
Changed	When properties become different to a previous state. E.g. paper when it gets wet.
Twist/twisting	Form into a bend, curling or distorted shape. E.g. A strip of metal is twisted to form a hollow tube.
Squash/ squashing	Crush or squeeze something with force so that it becomes flat, soft or out of shape.
Bend/bending	Shape of force something a material into a curve or angle.
Stretch/ stretching,	Material that is soft or elastic that is capable of being made longer or wider without tearing or breaking.
Material	The matter from which a thing can be made. E.g. your coat is made from fibres that form the fabric.
Properties	The quality or traits of a particular object or thing these can include measurement, colour, density, mass, volume length, hardness etc…
Weak	Likely to break or give way under pressure easily damaged not strong.
Rigid	Unable to bend or be forced out of shape, not flexible .
Flexible	Capable of bending easily without breaking.
Malleable	Materials that are able to be pressed or bent into different shapes without breaking or bending.