

What Prior Knowledge should students have?

- Materials and their properties
- Uses of materials
- How to keep healthy

What Skills will students learn (Disciplinary Knowledge)

- Identifying and classifying
- Recording – photographs, labelled drawings, Venn diagrams, tables, Carroll diagrams and bar charts.
- Measuring using standard and non-standard units
- Make observations and collect data

What key knowledge will be taught (Substantive Knowledge)

- Introduction to different ways of changing the shapes of objects made from different materials. Identify materials that can be changed by the actions of squashing, bending, twisting and stretching, and link these actions with the properties of the materials that allow them to be changed.
- Discover that some materials have different properties according to how they are shaped and what they are made into, and choose materials for uses according to their properties.
- Learn that pushes and pulls can cause movement or a change in shape.
- Learn about different ways to keep healthy: consider the importance of eating a range of different types of food and the importance of exercise and hygiene.

Key Vocabulary

Definition

Elastic	able to resume its normal shape after being stretched.
Flexible	able to bend without breaking.
Hygienic	relating to being clean to maintain good health.
Physical activity	movement of the body; exercise.
Rigid	unable to bend without breaking; not flexible.
Squashy	able to be squashed or pressed into a new shape that has the same volume.
Stretchy	able to be stretched into a longer, thinner shape that has the same volume.
Stiff	unable to be changed by squashing or stretching.
Unhealthy	in poor physical and/or mental health.

Common Misconceptions

- Children don't always recognise that there are different food types, just that they eat different things. It is important that children can give examples of food items belonging to each of the food types.
- In this module some properties are identified as fixed properties of a material, but others are seen to vary according to what the material has been made into, for example, wood is never stretchy but it can be flexible, especially if it is shaped into a thin ruler or dowel, or it can be rigid if made into a thick table top or door. Children need supporting to understand when they should refer to the material and when they also need to include information about the object, for example, metal spring, wooden block.