

National Curriculum programme of study:

Pupils should be taught:

- To identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.
- To explain how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

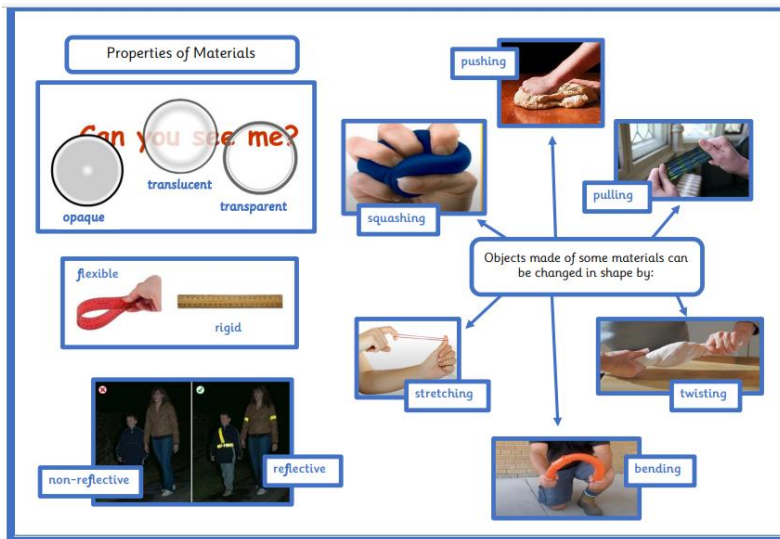
'Sticky' Knowledge

- Objects can be grouped according to their properties.
- Objects that are opaque let no light through.
- Objects that are translucent let some light through.
- Objects that are transparent let lots of light through.
- Solid materials can change shape by squashing, twisting, bending and stretching.
- Waterproof materials are used for items such as umbrellas and rain coats to keep people dry.
- Suitability means having properties which are right for a specific purpose.
- All objects have properties, these are what the material is like and how it behaves; for example whether it is soft, stretchy or waterproof.

Some materials are able to be squished, bent, twisted, and stretched due to their flexibility.



Some materials are not able to be squished, bent, twisted, and stretched due to them being too rigid.



Key Vocabulary

object	A material thing that can be seen and touched.
suitability	Suitability means having properties which are right for a specific purpose.
material	Materials are what objects are made from.
properties	This is what a material is like and how it behaves (soft, stretchy, waterproof)
bend	Changing something that is straight, into a curve.
squash	Pressing or squeezing to make a shape flat or smaller.
solid	An object that has a shape of its own.
flexible	Easily bent without breaking.

Prior Knowledge

Year 1 - 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 material and compare and group together a variety of everyday materials on the basis of their simple physical properties.

Future learning

Year 5- compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal).