Key Vocabulary

Materials	What objects are made from
Objects	Items made from different materials
Properties	What a material is like and how it behaves
Contrasting	Notable differences between two objects
Solid	Objects that are hard and keep their own shape e.g. wood, plastic, rocks and steel
Transparent	Objects you can see through clearly e.g. windows
Waterproof	Objects that keep water out e.g. umbrellas, wellie boots
Elasticity	How stretchy something is e.g. elastic bands
Rigidity	These items cannot be bent at all e.g. wood and metal
Durability	How long it takes something to be damaged by 'wear and tear' e.g. our trousers on the playground

Key Aim

By the end of this topic, pupils will be able to identify how the shapes of some solid objects can be changed by squashing, bending, twisting and stretching.
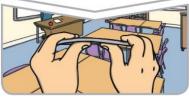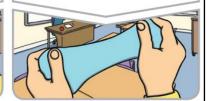

Squash an object by pushing both hands together.

Bend an object by grabbing both ends of the object and bringing the ends inwards together.

Twist an object by turning your hands in opposite directions.

Stretch an object by pulling your hands slowly and gently apart.

We will learn about the changes objects go through when being squashed, bent, twisted and stretched. We will also learn about the properties of solid materials and be able to identify objects and their properties. At the end of the unit we will be creating our own bridges!
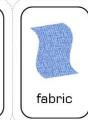
Do you know where this bridge is?

Isambard Kingdom Brunel's railway bridge built in the 1830's is made brick and crosses the river Thames between Maidenhead and Taplow. It was built to carry trains to London, and is still used today. When it was first built it was the widest arched bridge of its type in the world.

metal   glass   plastic   fabric

concrete   wood   ceramic   rubber

I Spy…

Can you spot any of the following materials at home…?

- Something that is hard?
- Something that is transparent?
- Something that is stretchy?
- Something that is waterproof?
- Something that is bendy?