Glenfield Infant School Knowledge Organiser

Year 2 - Spring 1	Science	Materials - Use of materials

What should I already know?

Objects have different name and are made from different materials. For example, glass, metal, wood, plastic, fabric….

The materials that an object is made from have a specific purpose.

Materials have different properties. A property is how a material is described.

Vocabulary

Material	It what an object is made of, like wood, metal, plastic, or fabric.
Property	It is how a material is described.
Suitable	This is when something is suitable for a purpose.
Elastic	Something that can be stretched easily and will go back to its original shape.
Flexible	Something that can bend or move easily without breaking.
Object	It is a thing you can see or touch.

1. What uses can different materials have?

Sticky Knowledge

Objects can be made from different materials and can be suitable for a range of uses. Sometimes there is more than one suitable material for an object. For example, a chair could be made from wood, metal or plastic because a chair needs a strong, stiff and tough material.

2. What uses can different materials have?

Label the bike parts.

Bike part	Material

Sticky Knowledge

Objects can be made from different materials that have properties for different uses. For example, a bike will have rubber tyres has rubber has good grip and stops them from slipping. A bike also has a metal frame because metal is strong, hard and not easy to break.

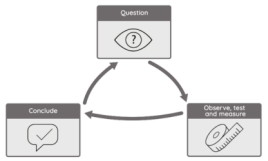
3. How can push and pull actions change the shape of objects?

Object	Stretch it	Twist it	Bend it	Squash it

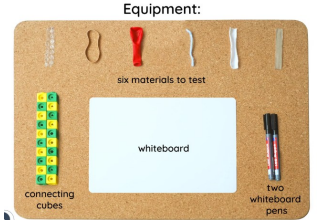
Sticky Knowledge

An object can be manipulated by hand to make it change shape. We can use push actions (twist, bend and squash) and pull actions (stretch and twist), to change the shape of objects.

4. How can we test the stretchiness of materials?



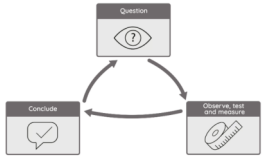
Equipment:



Sticky Knowledge

An object can be manipulated by hand to make it change shape. We can use pull actions, such as stretching. We can observe, test and measure the stretchiness of materials by pulling them to see how far they stretch.

5.How can we test the strength of materials?



Sticky Knowledge

The strength of some materials can be changed. We can use different paper folding techniques to create a bridge. We can measure the strength by counting cubes a bridge can hold until it collapses and touches the surface beneath it.

6.What eco-friendly materials can we use as an alternative to plastic?

Is plastic bad for the environment?

- When plastic is thrown away, it goes to landfill and stays there for hundreds of years.
- Plastic litter gets into the oceans and can cause harm to animals.

Reduce, reuse, recycle

- Reduce the amount of plastic you use and try to use different materials instead.
- If you use plastic, reuse it so it does not have to be thrown away.
- Recycle plastic by placing it in the correct bin so it can be made into something else.

Sticky Knowledge

Plastic litter is bad for the environment. It does not break down and stays in landfill and oceans for hundreds of years. We can 'Reduce, Reuse and Recycle'. Reduce plastic by using alternative materials, such as a bamboo toothbrush. Reuse plastic objects such as water bottles. Recycle materials so they can be made into new objects.