

# Sithney C.P. School Knowledge Organisers



## Science. Chemistry: Materials

### What you should already know:

You should already know about similarities and differences in relation to materials. (EYFS KUW)

### Key learning:

- 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 materials.
- Compare and group together a variety of everyday materials on the basis of their simple physical properties.
- Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.
- Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick/rock, and paper/cardboard for particular uses.

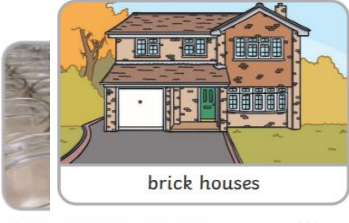
### Key Vocabulary:

<b>object</b>	A thing that can be used. For example a door, chair, car, table are all <b>objects</b> .
<b>material</b>	<b>Materials</b> are what an <b>object</b> is made from.
<b>hard</b>	Not easily broken or bent.
<b>soft</b>	If something is <b>soft</b> , it is easy to cut, fold or change the shape of.
<b>stretchy</b>	Can be pulled to make it longer or wider without breaking.
<b>shiny</b>	Reflects light easily.
<b>dull</b>	Doesn't reflect light. Doesn't look bright or <b>shiny</b> .
<b>rough</b>	If something is <b>rough</b> , it feels and looks uneven or bumpy.
<b>smooth</b>	<b>Smooth objects</b> have no lumps or bumps.
<b>bendy</b>	<b>Bendy</b> things can be <b>bent</b> easily into a curved or folded shape.
<b>not bendy</b>	If something is <b>not bendy</b> , it can't be bent easily into a curved or folded shape.
<b>waterproof</b>	If something is <b>waterproof</b> , it keeps water out. It keeps things dry.
<b>not waterproof</b>	<b>Not waterproof materials</b> let water in.
<b>absorbent</b>	If something is <b>absorbent</b> , it soaks liquid up.
<b>not absorbent</b>	If something is <b>not absorbent</b> , it does not soak up liquid.
<b>transparent</b>	<b>Transparent objects</b> can be seen through.
<b>opaque</b>	<b>Opaque objects</b> can't be seen through.

Materials:



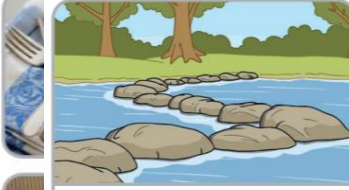
paper books



brick houses



fabric clothing



stepping stones



lightweight, flexible.



strong, light, stiff.



fabric: soft, flexible, hard-wearing, can be stretchy, warm, absorbent.



rubber: hard-wearing, elastic, flexible, strong.

Key Vocabulary

**materials**

**Materials** are what objects are made from.

**suitability**

**Suitability** means having the **properties** which are right for a specific purpose.

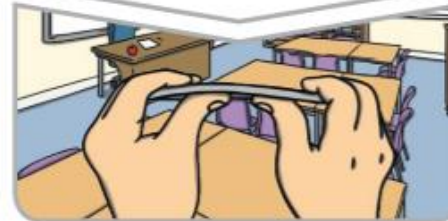
**properties**

This is what a **material** is like and how it behaves (soft, stretchy, waterproof).

Squash an object by pushing both hands together.



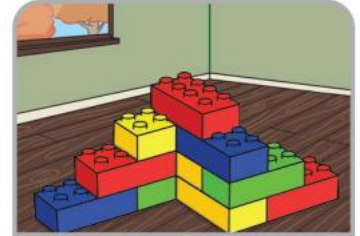
Bend an object by grabbing both ends of the object and bringing the ends inwards together.



Twist an object by turning your hands in opposite directions.



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



plastic toys



wooden furniture



glass window