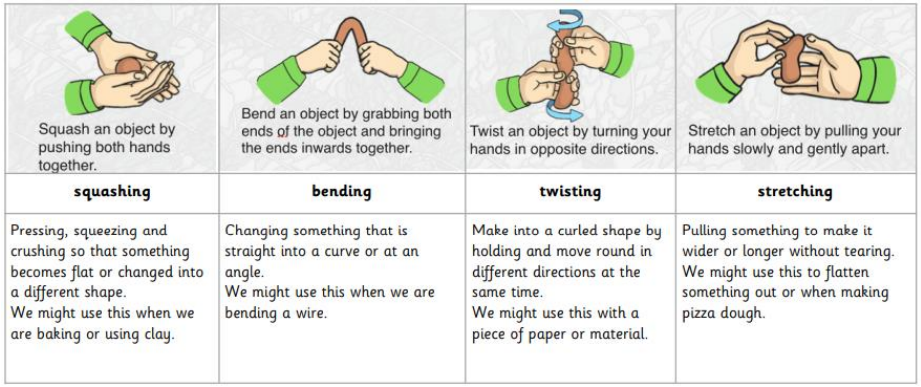
Science - Y2 – Autumn Term

What are things made from and why?

Uses of everyday materials

Some materials can change shape when you squash, bend, twist or stretch them. Materials that are soft, bendy or stretchy are often easier to change the shape of than materials that are hard, rigid or strong.

Key Vocabulary	
Material	A material is what something is made of, such as wood or plastic.
Suitability	Suitability means having the right properties for a certain use.
Properties	The properties of a material tell us what it is like and how it behaves, such as whether it is soft, rough or transparent.
Strong	Strong materials do not change shape or break easily.
Flexible	Flexible materials can bend easily without breaking.
Rigid	Rigid materials do not bend easily.
Transparent	If a material is transparent, all light passes through it.
Translucent	If a material is translucent, some light passes through it.
Opaque	If a material is opaque, no light passes through it.
Absorbent	If a material is absorbent, it can soak up liquid easily.
Waterproof	If a material is waterproof, it keeps water out.



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.
squashing	**bending**	**twisting**	**stretching**
Pressing, squeezing and crushing so that something becomes flat or changed into a different shape. We might use this when we are baking or using clay.	Changing something that is straight into a curve or at an angle. We might use this when we are bending a wire.	Make into a curled shape by holding and move round in different directions at the same time. We might use this with a piece of paper or material.	Pulling something to make it wider or longer without tearing. We might use this to flatten something out or when making pizza dough.

Some materials are used for more than one thing.
For example, metal is used to make all of these things.

Different materials can be used to make the same thing.
For example, spoons can be made of different materials.

The properties of a **material** affect their **suitability**, making them either suitable or unsuitable for particular uses.

Properties of different materials	
Wood	strong, opaque, stiff, hard
Plastic	bendy, smooth, translucent, stretchy
Glass	transparent, hard, smooth, waterproof
Brick	rough, strong, opaque, dull
Paper	translucent, flexible, not waterproof
Cardboard	rough, dull, opaque, not waterproof
Metal	Shiny, strong, opaque, hard
Rock	Rough, strong, opaque, hard

Roots to grow, wings to fly