



Key Vocabulary

1	Reflective	Capable of reflecting light.
3	Flexible	Easily bent without breaking.
4	Translucent	Letting only some light through
5	Transparent	Letting light pass through and giving a clear view.
6	Opaque	Not letting light pass through.
7	Rigid	Difficult or impossible to bend.
8	Man-made	Made or formed by humans.
9	Natural	Produced by nature.
10	Change	To make different.
11	Uses	Being used for a purpose.
12	Everyday items	Ordinary items, used everyday.
13	Senses	Touch, smell, sight, hear, taste.
14	Strong	Having or showing great power or strength.
15	Weak	Not having much strength or power.
16	Shape	The form of something.
17	Compare	Identify similarities and differences.
18	Suitability	Having the properties which are right for the purpose.
19	Classify	Arrange into groups according to shared characteristics.
20	Purpose	A reason that guides an action.

Sticky Knowledge

1	A material is what we refer to when we are talking about what an object is made from.
2	There are lots of different types of properties which make the material suitable.
3	Properties include what the material feels like and what it looks like.
4	Some materials might need to be hard wearing, water proof, weather proof, flexible or see through.
5	Wood is hard, strong, opaque and can be carved into any shape.
6	Plastic is waterproof and strong and is very versatile.
7	Paper is lightweight and flexible.
8	Glass is waterproof, transparent, hard and smooth.
9	Metal is strong and hard.
10	Cardboard is strong and light.
11	Rubber is hard wearing, elastic, flexible and strong.
12	Fabric is soft, flexible and hard wearing.
13	To compare properties of materials, we can squash, bend, twist and stretch objects.
14	It is important that we try to look after our environment by using eco-friendly materials and recycling.



Key Questions

1	What is a material?
2	What uses do you know for a particular material?
3	What materials can we find around us?
4	Why is a particular material suitable for its purpose?
5	Can you use your senses to tell me about the properties of some materials?
6	What materials can be recycled?
7	What materials can't be recycled?
2	Can you describe the properties of different materials using words like, transparent or opaque, flexible, etc.?
6	Can you identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper, cardboard for particular uses?
7	Can you explain how things move on different surfaces?
8	Can you sort materials into groups and say why they have sorted them in that way?
9	Can you say which materials are natural and which are man made?
10	Can you explain how materials are changed by heating and cooling?
11	Can you explain how materials are changed by bending, twisting and stretching?



Prior Vocabulary

1	Material	What an object is made from. Eg. wood, plastic, glass, metal and rock
2	Properties	The features of a particular item.
3	Solid	Firm and stable in shape.
4	Liquid	A form that flows easily.
5	Gas	A form of matter that is neither liquid nor solid.
6	Bendy	Able to bend.
8	Soft	Easy to bend or to shape.
9	Hard	Not soft.
10	Squashing	To press, beat, or crush into a flat mass.
11	Stretching	To spread out or reach out to the full length.
12	Texture	The feel of a material.
13	Properties	A quality that something is known by.
14	Absorbent	Able to soak up liquid.
15	Waterproof	Not letting water through.

Prior Knowledge

1	Materials can be grouped according to their properties.
2	Materials have different properties, such as hard or soft; stretchy or stiff; rough or smooth; opaque or transparent; bendy or rigid; waterproof or not waterproof; magnetic or non-magnetic.
3	A material is what an object is made from. Everyday materials include wood, plastic, glass, metal, water, rock, brick, paper and fabric.
4	Know the name of the materials an object is made from
5	Know about the properties of everyday materials
6	All objects are made of one or more materials. Some objects can be made from different materials e.g. plastic, metal or wooden spoons.
7	Materials can be described by their properties e.g. shiny, stretchy, rough etc.
8	Some materials e.g. plastic can be in different forms with very different properties.

Future Learning

1	Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. (Y3 - Rocks)
2	Notice that some forces need contact between two objects, but magnetic
3	Forces can act at a distance. (Y3 - Forces and magnets)
4	Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. (Y5 - Properties and changes of materials)
5	Give reasons, based on evidence from comparative and fair tests, for the
6	particular uses of everyday materials, including metals, wood and plastic. (Y5 - Properties and changes of materials)