Uses of everyday materials (Year 1)

Prior Learning

Understanding the World

What are the similarities and differences between different materials?

Observations of natural and found objects.

Key Vocabulary

Function: What an object or material is used or suited for.		Variation: A slightly different form or version of something.	
Hardness: Something is solid, firm and not soft.	Softness: Not firm or hard.	Use: What we do with something.	Waterproof: It does not let things or people get wet.

Key Facts

1) Some names of common materials are wood, plastic, fabric, paper, glass and metal.

2) Metal is shiny and hard to bend.

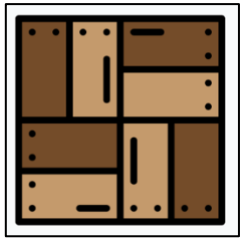
3) Plastic is waterproof and used to make bottles.

4) Fabric is soft and is used to make clothes.

5) Wood is hard and is used to make tables.

6) Paper is bendy and is used to make books.

Images and Icons



Uses of Everyday of Materials (Year 2)

Prior Learning

Year 1 – Uses of every day materials

- Different objects are made from different materials based on their properties.
- Items lie umbrellas and coats are made with waterproof materials to keep the rain out.
- Materials can bend, twist, stretch and squash and return to their original shape. Which objects are bendy? Stretchy? Soft?

Key Vocabulary

Variation: A different or distinct form of version of something

Function: Work or operate in a particular way

Stretch: Extend or Lengthen something beyond its normal length

Squash: Press, beat or crush something flat

Transparent: Materials that you can see through

Opaque: Materials that you can't see through

Key Facts

1) Plastic is a versatile material and is used to make toys, bottles and furniture because it comes in many different colours, it can be opaque or translucent and can change shape easily.

2) Paper and cardboard comes from wood.

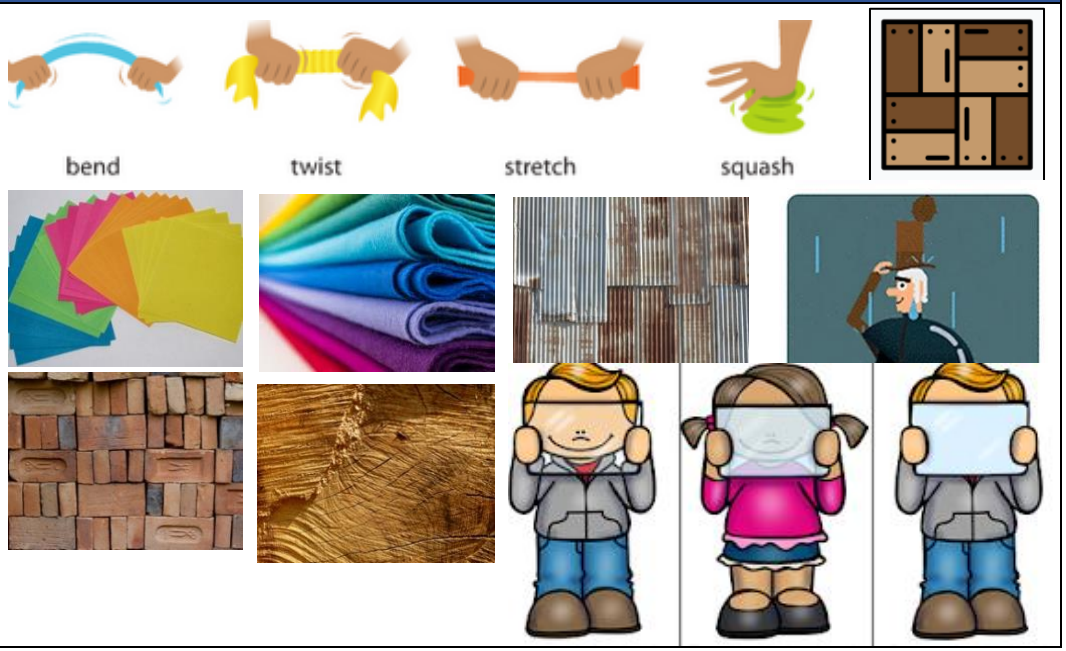
3) Glass is transparent and waterproof and metal is opaque and hard.

5) Some materials can have multiple uses such as glass can be used in windows and cups, metal can be used as tin foil, screws and in cars.

4) Some materials are better suited to a use than others e.g. paper is not waterproof and wouldn't be a good material for a cup, glass is too fragile to make a house from, metal is too stiff to make clothing from.

6) Charles Macintosh invented the waterproof mac. His invention has been used to develop other waterproof clothing.

Images and Icons



Properties of Materials (Year 5)

Prior Learning

Year 2 – Uses of every day materials

- Can you name the materials that make up objects in the class and cloakroom?
- Can you define these terms: Waterproof, hard, soft, flexible, rigid. Strong and weak?
- Think about the multiple uses of plastic. What objects use plastic in different ways?

Year 4 – States of Matter

- What are the three states of matter?
- What causes changes between states of matter?

Key Vocabulary

Variation: A different or distinct form of version of something

Function: Work or operate in a particular way

Reversible: Able to be turned back into a previous state

Dissolve: Become part of a liquid to form a solution

Separation: Moving materials apart

Purpose: The role of a material

Key Facts

1) Every object is made of at least one material and that material is serving a specific purpose (for example, the plastic's purpose in an umbrella is to be impermeable and not allow water to get through).

2) Materials are often mixed together but can be separated using Sieving and evaporating. Sand and Water, for example, can be separated if you evaporate the water!

3) Salt dissolves into water, whereas sand just mixes in. Salt is 'soluble' and sand is 'insoluble'.

4) You can change a material forever if you burn it or cause a chemical reaction to create a new material. (For example, cooking an egg). You can't change it back to its previous state! This is called an 'irreversible' change.

5) Some materials can be changed, but you can reverse that change to return it to its original state. For example, freezing water turns into ice. But you can reverse that change by melting it back into water! This is called a 'reversible' change.

6) Chemical reactions can create a brand new material! Burnt toast, for example, is a different material than bread. Ralph Wiley (a famous chemist) made cling film originally to be used on fighter jet planes! But he found out that it had a more useful purpose for covering food for preservation.

Images and Icons