

Knowledge Organiser

Topic: Everyday Materials

Year 2

Strand: Chemistry

What should I already know?

- Objects are things that you can touch or see.
- Objects are made from materials.
- Some materials that objects are made from (e.g. **glass**, **wood**, **plastic**)
- Some words to describe materials (e.g. **shiny**, **soft**, **rough**, **absorbent**)
- Materials which are **natural** and which are **man-made**.

What will I know by the end of the unit?

What are materials used for?

- Materials are used for different **purposes** based on their **properties**.
- For example, **wood** is used to make furniture and floors.
- **Metal** can be used to make coins, cans, cars and cutlery.
- **Glass** can be used to make windows.



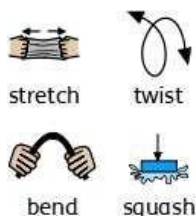
What **properties** of materials make them suitable for a particular use?

- Glass can be used to make windows because it is **transparent**.
- Rulers can be made from **wood**, **plastic** or rubber because these materials are **smooth** and can be cut straight.
- Spoons are made from **metal**, because it is **waterproof** and can be cleaned easily.
- They can also be made from **plastic** for children because **plastic** is light and it cannot hurt children's growing teeth.



How can you change the shape of materials?

- The shape of some materials can be changed when they are **stretched**, **twisted**, **bent** and **squashed**.



Vocabulary

| | |
|-------------|--|
| absorbent | material that soaks up liquid easily |
| bendy | an object that bends easily into a curved shape |
| brick | rectangular blocks of baked clay used for building walls, which are usually red or brown |
| dull | a colour or light that is not bright |
| elastic | a rubber material that stretches when you pull it and returns to its original size and shape when you let it go |
| fabrics | cloth or other material produced by weaving together cotton, wool or other threads. |
| foil | sheets of metal as thin as paper |
| glass | a hard transparent material |
| man-made | things are created by people |
| metal | a hard substance such as iron, steel, gold, or lead |
| natural | things that exist in nature and are not made by people |
| opaque | if an object or substance is opaque , you cannot see through it |
| plastic | a material which is light in weight and does not break easily |
| process | a series of actions used to produce something or reach a goal. |
| properties | the qualities or features that belong to something and make it recognisable |
| purpose | the reason for which it is made or done |
| recyclable | waste or materials which can be processed and used again |
| rock | the hard substance which the Earth is made of |
| rough | uneven and not smooth |
| shiny | things are bright and reflect light |
| smooth | no roughness, lumps, or holes |
| soft | not rough or hard |
| squash | pressed or crushed with such force that something loses its shape |
| stiff | firm or does not bend easily |
| stretchy | slightly elastic |
| suitable | something that is suitable for a particular purpose or occasion is right or acceptable for it |
| transparent | If an object is transparent , you can see through it |
| twist | turn something to make a spiral shape |
| unsuitable | Someone or something that is unsuitable for a particular purpose or situation does not have the right properties for it |
| waterproof | does not let water pass through it |
| wood | the material which forms the trunks and branches of trees |

Investigate!

- Compare the uses of everyday materials in and around the school with materials found in other places (at home, the journey to school, on visits, and in stories, rhymes and songs)
- Observe closely the uses of different materials, and record your observations.
- Distinguish between **absorbent** and **waterproof** materials. Discuss what happens when water is placed on these materials.
- Consider why some **properties** of materials make them **suitable** or **unsuitable** for different uses.
- Investigate if some items can be made by more than one material (e.g. cutlery) and explain why.
- Investigate if some materials can be used to make more than one thing.
- Discuss which materials are **recyclable** and why. Follow the **recycling process**.
- Investigate how some objects can be changed by **squashing**, **bending**, **twisting** and **stretching**.

