

What should I already know?

Similarities and differences between common, everyday objects (EYFS)

Distinguish between an object and the material from which it is made (Y1)

Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock (Y1)

Describe the simple physical properties of a variety of everyday materials (Y1)

What will I know by the end of the unit?

Objects are things 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**)

What are materials used for?

Materials are used for different **purposes** based on their **properties** (**glass** = windows, **wood** = floors, **metal** = cans, coins)



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 can be made from **metal** because it is **waterproof** and easy to clean but also **plastic** because it is light and 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

| | |
|----------------|--|
| bend | when something can become curved |
| flexible | something that can bend easily and not break |
| non-reflective | cannot reflect light |
| opaque | if an object or substance is opaque , you can not see through it |
| pull | a force that changes the direction of an object towards you |
| push | a force that changes the direction of an object away from you |
| process | a series of actions used to produce something or reach a goal |
| properties | the qualities and features that belong to something and make it recognisable |
| recyclable | waste or materials which can be processed and used again |
| reflective | a shiny surface that lets light bounce off it |
| rigid | something that does not bend or move |
| squash | pressed or crushed with such force that something loses its shape |
| suitable | something good or acceptable to use for a particular purpose or occasion |
| translucent | something that is a little see through and lets some light through |
| transparent | if an object is transparent , you can see through it |
| twist | turn something to make a spiral shape |
| unsuitable | something that does not have the right properties for a particular purpose |

Investigate!

- Compare the uses of everyday materials in and around the school with materials found in other places.
- 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 (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**, **twisting** and **stretching**.