

Sorting Materials Into Groups

- The Substances that are present in nature are known as **natural substances** (for example wood, soil) while the one derived from naturally available substances by processing them are known as **man-made substances** (for example nylon, plastic).
- The natural substances derived from living things such as plants and animals are called **biotic substances** and those derived from non-living things are called **abiotic substances**.
- **Plant origin** substances are obtained from plants and **animal origin** substances are obtained from animals.
- Objects around us can be made up of one or more materials.

Material	Objects made of these materials
Paper	Books, newspaper, calendars, etc.
Wood	Chair, table, plough, pencil, etc.
Plastic	Pen, plate, toys, bottle, buckets, etc.
Leather	Bags, shoes, etc.

- Different materials have different properties and they are grouped on the basis of differences and similarities in their properties.
 - Some materials are **lustrous** or shiny in appearance (for example, metals) and some are not (for example, chalk, wood, paper).
 - Some materials are **hard** (for example, metals, wood) and some are **soft** (for example, candle and chalk).
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- Substances or materials through which things can be seen are called **transparent** substances. Example: glass, water, air
 - Substances or materials through which things can be seen but not clearly are called **translucent** substances. Example: oiled paper
 - Substances or materials through which things cannot be seen are called **opaque** substances. Example: wood, metals.

- **Soluble (in water):** Substances that completely dissolve in water are known as soluble substances. Examples: salt, sugar, vinegar, lemon juice etc.
- **Insoluble (in water):** Substances that do not mix with water even after we stir it for a long time are known as insoluble substances. Examples: sand, chalk powder, saw dust, mustard oil, coconut oil, kerosene etc.
- The substances which are insoluble in water, either **float** (for example, dry leaves, wooden cork) or **sink** (for example, stone, key) in water.
- The substances that can easily flow through a surface have high **fluidity** (for example water) while some are thick and have less smooth flow.