



### Chapter 4

### Sorting Materials into Groups

#### NOTES:

- We are surrounded by different varieties of objects which have different shape, colour and uses.
- Different materials are used to make different objects.

**Example:** Paper is used to make books, notebooks, newspaper etc.

Lead and wood is used to make pencil.

Metal and plastic is used to make pen.

- Objects are grouped on the basis of their shape or the materials they are made from.

Round shape	Cylindrical shape	Rectangular shape
Football, Orange, Apple, Coin etc.	Pipe, Gas cylinder, tube light etc.	Bricks, shoes box etc.

- Different materials have different properties such as appearance, hardness, solubility, transparency, float or sink in water etc.
- Materials like gold, glass, aluminium is **lustre**, while wood is **dull**.
- Some materials are easily compressed and called **soft material** and some are hard to compress. Example: Cotton (**soft material**), Iron (**hard materials**).
- **Soluble substances** are substances that are completely dissolved in water.
- **Insoluble substances** are substances that do not dissolve or do not disappear in water even after stirring for a long time.
- Any substances or materials through which light can pass through and object can be seen clearly are called **transparent materials**.
- **Opaque materials** are the materials which light cannot pass through and object cannot be seen through them.
- **Translucent materials** are the materials through which objects can be seen but not clearly.
- Insoluble soft materials float in water while insoluble hard materials sink in water.
- We group the materials for our convenience, to locate them and to study their properties and pattern easily.

