



CHAPTER NOTES

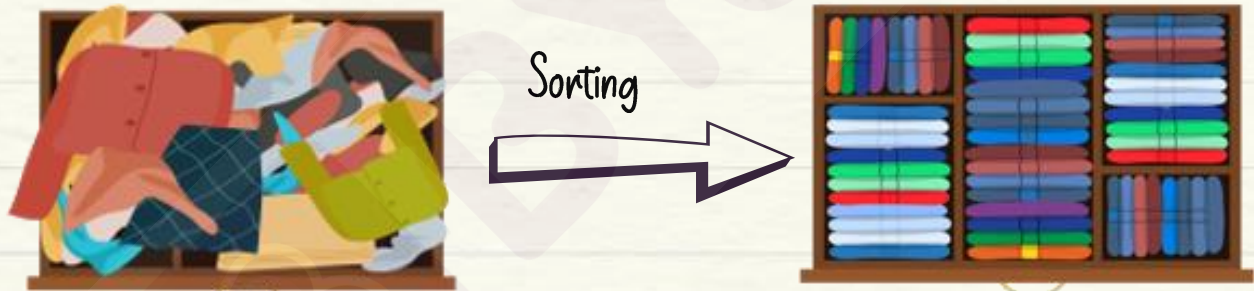
Sorting of Materials into Groups



1. Need for Sorting Materials

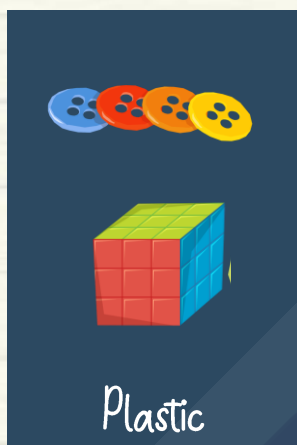


- Sorting materials into groups helps to arrange them in a systematic manner.
- Sorting provides an ease in handling objects.
- Sorting makes it easy to study and compare the properties of objects.



2. Sorting Based on Properties of Materials

- Objects are made up of different types of materials like steel, plastic, wood, leather, metals, and more.



- Objects can be made up of one or more than one type of material.



Sorting Based on Properties of Materials

Following properties of materials can be used to sort objects:

2.1. Use

- Substances can be separated from each other based on their usage.



Clothes



Toys



Grocery







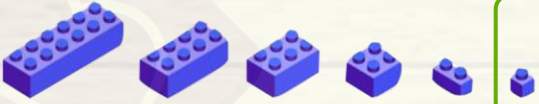
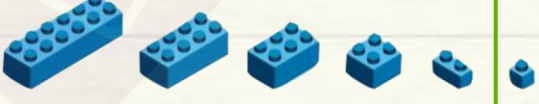

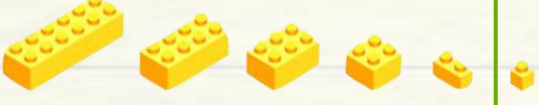
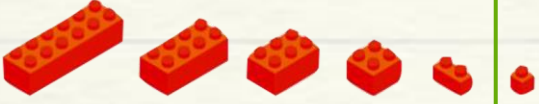

Stationary

Sorting Based on Properties of Materials

2.2 Appearance

- Substances can be sorted based on their shape, size, colour, and lustre.

Lustrous		Non-Lustrous	
Shiny appearance		Dull appearance	
Example:		Example:	
			
Gold	Silver	Wood	Paper

	Same colour
	
	
	
	
	Same shape

Sorting Based on Properties of Materials

2.3 Hardness

- On pressing different materials, some may be hard to compress while others can be easily compressed.
- Based on hardness, substances can be sorted into two groups:

Hard

Does not deform on applying pressure

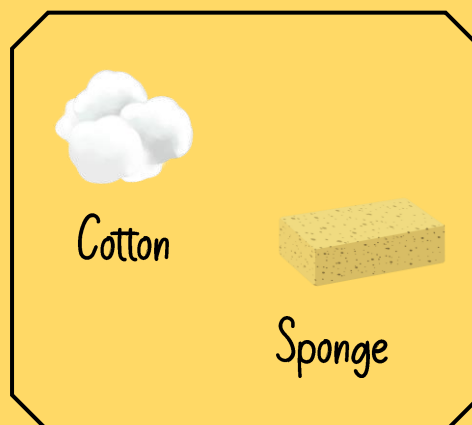
Example:



Soft

Deform on applying pressure

Example:



Sorting Based on Properties of Materials

2.4 Floatation

- If an object is lighter than water, it will float.
- If an object is heavier than water, it will sink.



Objects lighter than water – float

Objects heavier than water – sink

Sorting Based on Properties of Materials



2.5 Solubility

- Ability of the substance to mix completely in another substance
- Based on solubility in water, substances can be sorted into two groups:

Insoluble in water

Do not dissolve completely in water

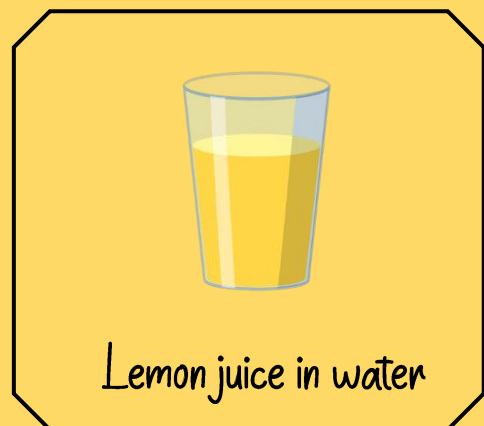
Example:



Soluble in water

Dissolve completely in water

Example:



Sorting Based on Properties of Materials



2.6 Transparency



Transparent

The materials through which objects can be seen clearly

Example: Clean glass



Translucent

The materials through which objects can be seen, but not clearly

Example: Stained glass, glossy paper



Opaque

The materials through which objects cannot be seen

Example: Wood, steel



Mind Map

