



# Sorting Materials Into Groups

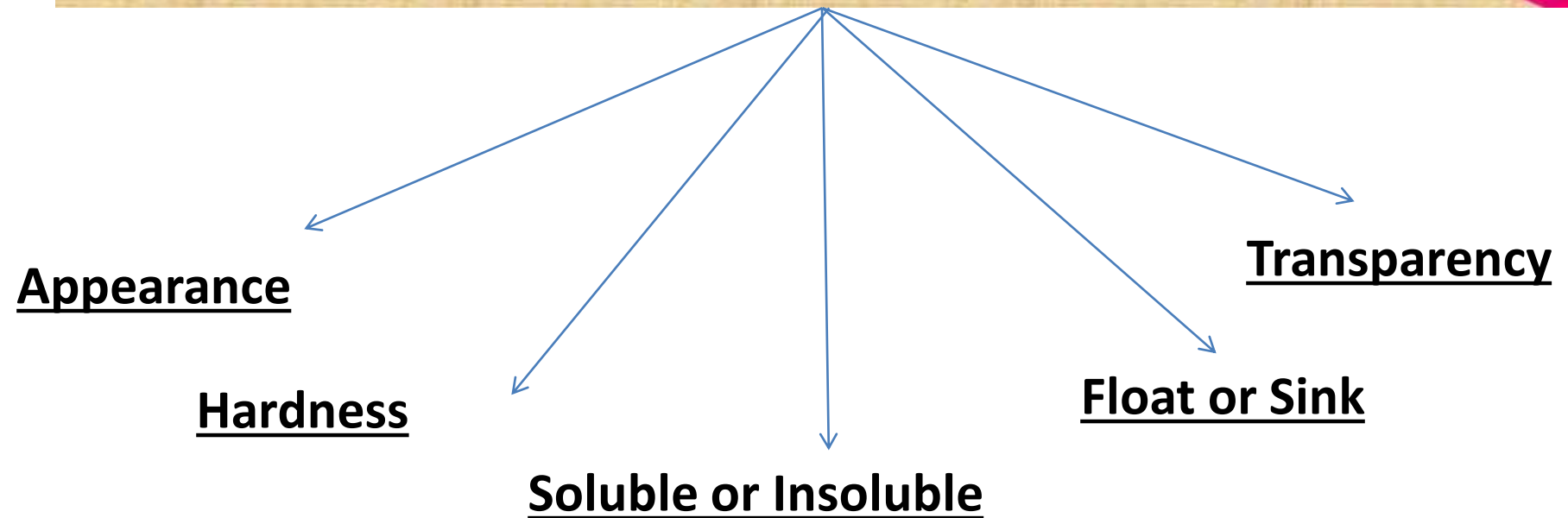
Class - 6

Session- 3

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# Materials and their properties.



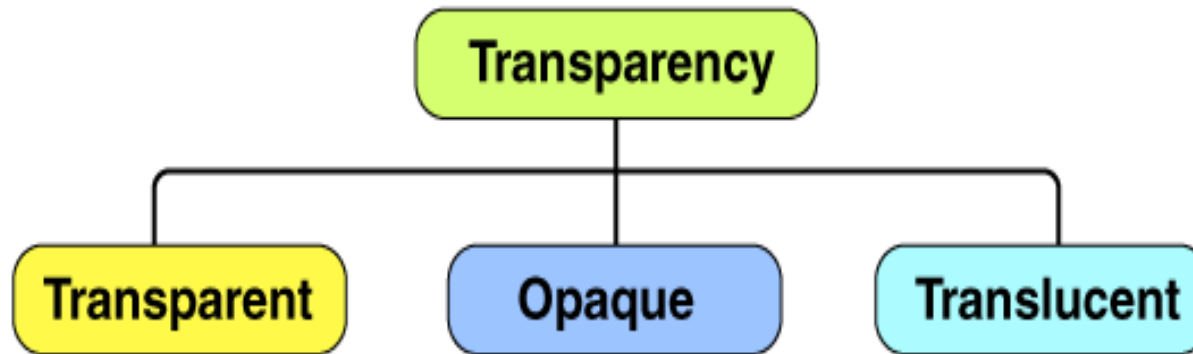
# Materials – Float or Sink



- you may have noticed **materials** in this activity .
  - Some did not mix with water, some floated to the surface of water.
  - Others may have sunk to the bottom of the tumbler, right?
  - Certain materials **float** on water whereas others **sink**
  - This property of a material to float on water is called **flotation**.
- Generally, materials like wood, leaf, and feather float on water whereas rock and metal sink.

# Materials—Transparency Property

- Materials can be grouped into **three** main categories based on their ability to transmit light.
- Classification based on transparency



# Transparent Materials

- Can you see through all the materials?
- Those substances or materials, through which things can be seen, are called **transparent**
- Materials which **allow** light to pass through them are called **transparent**.
- Glass, water, air and some plastics are examples of transparent materials.
- Shopkeepers usually prefer to keep biscuits, sweets and other eatables in transparent containers of glass or plastic, so that buyers can easily see these items.



# Opaque Materials

- On the other hand, there are some materials through which you are not able to see. These materials are called opaque.
- Materials which **do not allow** light to pass through them are called **opaque materials**.
- You cannot tell what is kept in a closed wooden box, a cardboard carton or a metal container.
- Wood, cardboard and metals, are examples of opaque materials
- A shadow is formed when an opaque object comes in the path of light and stops it.



# TRANSLUCENT

- The materials through which objects can be seen, but **not clearly**, are known as **translucent material**.
- Translucent materials allow light to pass through them partially .
- Example of translucent materials are: butter paper, frosted glass etc.
- Take a sheet of paper and look through it towards a lighted bulb. Note your observation.
- Now, put 2-3 drops of some oil and spread it on the sheet of paper. Look again towards the lighted bulb through that portion of the paper on which the oil has been spread
- . Do you find that the bulb is more clearly visible than before? Perhaps not?



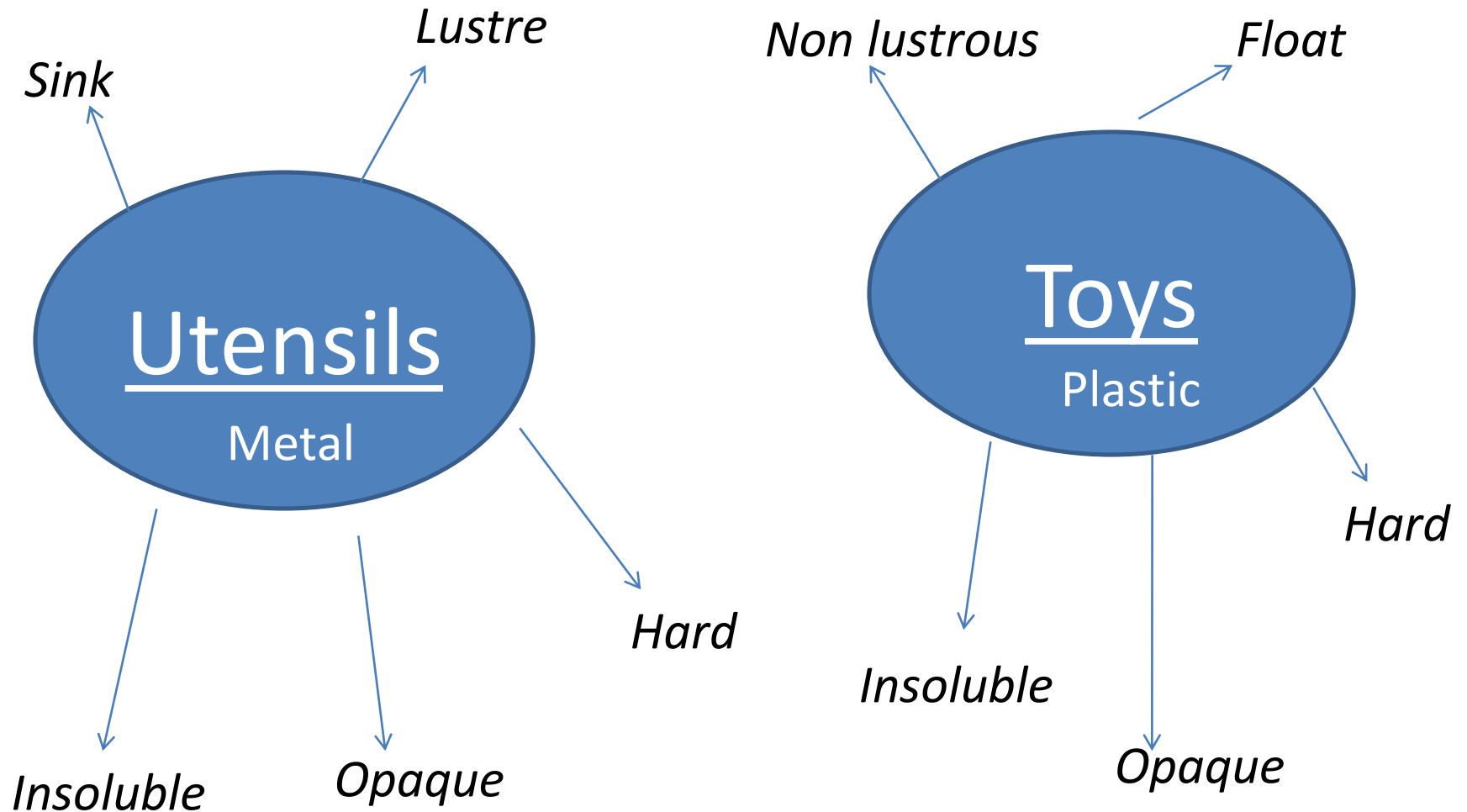
# Transparent, Translucent and Opaque

➤ We can therefore **group** materials as opaque, transparent and translucent.





# Sorting materials into group



# Recap

- We learnt that materials differ in their **appearance** and the way they **mix** in water .
- They may **float or sink** in water .They may be **transparent, opaque or translucent**. Materials can be grouped on the basis of similarities or differences in their properties.
- In everyday life, we often group materials for our **convenience**.
- At home, we usually store things in such a manner that similar objects are placed together. Such an arrangement helps us to **locate them** easily.
- Dividing materials in groups makes it convenient to study their **properties** and also observe any patterns in these properties.



Every end  
is a new  
beginning.