



SORTING MATERIALS INTO GROUPS

OBJECTS AROUND US

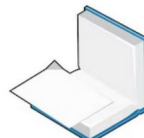
- All objects around us are made up of one or more materials.
- Materials:
Anything which has a weight and occupies space around us is called Matter and materials are made up of matters.
Example – metals, paper, glass, mud, plastic etc.



METAL



E-WASTE



PAPER



PLASTIC



ORGANIC



GLASS



LIGHT BULBS



MIXED WASTE



BATTERIES

PROPERTIES OF MATERIALS

- Different materials have different properties, for example, we can make tumbler (object in which we drink water) from material such as glass, plastic, or steel.
- All these materials have the properties to hold water or other liquids in them.
- We can't make tumbler from a piece of cloth that can't hold water.



APPEARANCE

- ✗ Materials usually look different from each other.
- ✗ Wood looks very different from iron and iron appears different from copper and aluminium.
- ✗ Also, there may be some similarities between iron, copper and aluminium that are not there in wood.
- ✗ The appearance of material can be divided into two types, shiny and dull.
- ✗ Materials with shiny properties are used to have a gentle and soft glow.



Question:

Why do materials like gold, copper, aluminium, iron, etc. Usually lose their shine after some time?

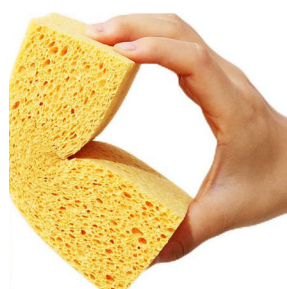
Answer:

Materials like gold, copper, aluminium, iron, etc. Lose their shine after some time due to the action of moisture and air on it.

HARDNESS AND SOFTNESS OF MATERIALS

- Material that can be compressed or scratched easily is called soft materials.

Example – Cotton or sponge are soft materials.



- Material that can't be compressed or scratched easily is called hard materials.

Example – Diamond and stone are hard materials.



SOLUBILITY AND INSOLUBILITY OF MATERIALS

- Materials that are completely dissolved in water are called soluble materials.

Example – Sugar completely dissolves in water.



- Materials that do not dissolve in water are called insoluble materials.

Example – Sand, chalk powder, etc. do not dissolve in water.



- Not just solid materials, even liquids have the property of being soluble or insoluble.

Example – Lemon juice can easily dissolve in water while oil does not dissolved and suspends over water.

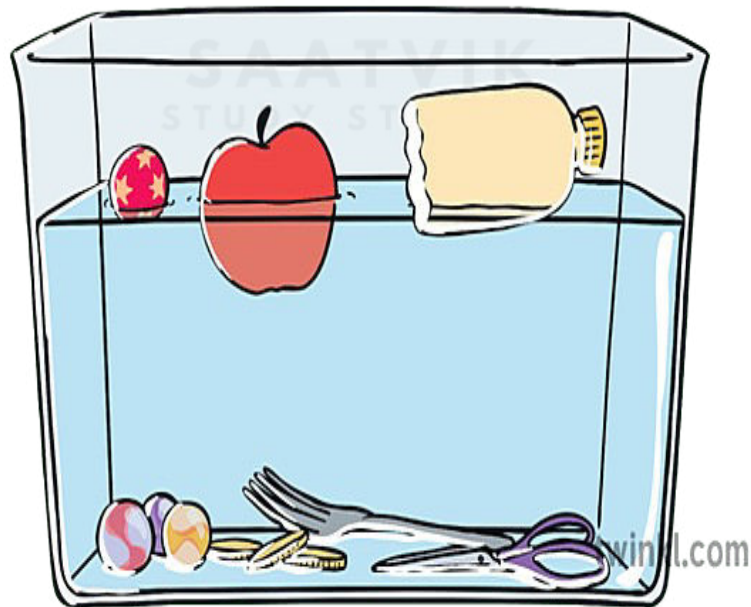


OBJECT MAY FLOAT OR SINK IN WATER

- ✕ Some material do not mix with water and floats on the surface.

Example – Leaves and wooden cork floats on surface of water.

- ✕ Some materials like stones and coins sink to the bottom of the water.



TRANSPARENCY

➤ Transparent:

A Transparent object are materials through which we can see clearly is known as transparent object.

Example – Glass, clear water and some plastics are transparent materials.



➤ Translucent:

A Translucent object or material lets the light pass through them, but we cannot see the objects on the other side clearly.

Example – Butter paper is a translucent object.



➤ Opaque:

An Opaque object don't let light to pass through them, So we cannot see the object on the other side.

Example – Metal, wood, cardboard are opaque objects.

