Chapter 4 Sorting Materials into Groups

Extra Question \Answer

Question 1.
What do you mean by classification?
Answer:
Classification is the grouping or sorting together of things possessing similar or dissimilar characteristics or properties.

Question 2.
What is the need for classification?
Answer:
Classification is essential for:

- identification of objects.
- sorting of objects.
- locating things.
- understanding similarities and dissimilarities among objects.
- making the study of objects easy and more meaningful.

Question 3.

On what basis are the various objects grouped?
Answer:
The grouping of various objects can be done on the basis of following characters:

- size
- shape
- colour
- hardness
- solubility in water
- attraction towards magnet
- conduction of heat
- transparency, etc.

Question 4
Why is water important for our body?
Answer:
Water can dissolve a large number of substances, so it is needed by the body. It is also major part of our body cells

Question 5

Write any four properties of materials.
Answer:
Four properties of materials are:

1. Appearance

2. Hardness
3. Solubility or insolubility
4. Float or buoyancy
5. Transparency.

Question 6

Differentiate between soluble and insoluble material

Answer

Materials which can be compressed or scratched easily are called soft material.for example cotton or sponge

Materials which can not be compressed or scratched easily are called hard material.for example iron.

Question 7

Differentiate between soft and hard materials.

Answer

Those materials which cannot be easily compressed, cut, bent or scratched are called hard materials.
Examples: Iron, glass.
Those materials which can be easily compressed, cut, bent or scratched are called soft materials.
Examples: Sponge, Cotton.

Differentiate between transparent, translucent and opaque material.

Transparent objects	Translucent objects	Opaque objects
These objects allow light to pass through them.	These objects allow light to pass through them partially.	These objects do not allow light to pass through them.
One can clearly see through transparent objects.	One can see through translucent objects but not very clearly.	One cannot see through opaque objects.
Transparent objects do not cast shadows because they do not block light.	Translucent objects cast faint shadows as they block light partially.	Opaque objects cast dark shadows as they block light completely.

Fill in the blanks with appropriate words:

1. Grouping of things is done for ………….. .
2. Classification is done on the basis of some ……………. and ………… .
3. A thing can be made of different ……………. .
4. Different materials can be used to make ……………. .
5. Mustard oil is ……………….. in water.
6. A sugar syrup is a ……………….. .
7. Blue Vitriol (Neela though) is ……………… in water.
8. Sand is ……………. in water.
9. Lemon juice is ………………… in water.
10. …………………. substances are those through which we can easily see.
11. Materials which conduct heat quickly are called ……………………….. of heat.
12. Iron is a ……………. material.

Answer:

1. convenience
2. Similarities, differences
3. materials
4. same thing
5. immiscible
6. solution
7. soluble
8. insoluble
9. miscible
10. Transparent
11. conductor
12. natural