

Subject: Science

Worksheet No: 6(Separation of substances)

Grade: 6

A. Answer in brief.

1. Name the gases present in air.
2. Describe three properties of mixtures by giving examples.
3. What will happen to the boiling point of pure water if you dissolve salt in it?
4. List three purposes of separation of substances.
5. How does a respirator help a patient?
6. List the methods used for separating solids from other solids.
7. List the methods for separating insoluble solids from liquids.
8. List the methods used for separating soluble solids from liquids.
9. Which instrument is used at construction sites for separation of stones?
10. Why is using a sieve at homes not considered a healthy practice?
11. In which situations are the processes of sedimentation and decantation used?
12. What is the use of ultraviolet light in a filter?
13. Why is water called the universal solvent?

G. Match the columns.

Column A

1. Separating funnel
2. Decantation
3. Solvent
4. Chlorine
5. Liebig's condenser
6. Loading

Column B

- a. speeds up the sedimentation
- b. kills germs
- c. separates immiscible liquids
- d. water
- e. cools the water vapour
- f. separates insoluble solids from liquids

B. Define the following.

1. decantation: _____
2. filtration: _____
3. sediment: _____
4. loading: _____
5. condensation: _____
6. solubility: _____
7. universal solvent: _____
8. solute: _____

C. Write true or false.

1. Wood is a pure substance. _____
2. The salt and water particles can be seen separately in a homogeneous mixture. _____
3. Pure water at sea level boils at 100 °C. _____
4. Decantation is used to separate soluble solids from liquids. _____
5. The solubility of gases in water decreases with rise in temperature. _____

D. Differentiate between the following.

1. Homogeneous and heterogeneous mixtures
2. Filtration and hand-picking
3. Loading and sedimentation
4. Distillation and filtration

E. Fill in the blanks.

1. A pure compound has a fixed _____ and _____ points.
2. Hand-picking is done when the _____ components are present in small amounts.
3. In some filters, _____ light is used to kill germs.
4. The solubility of most substances increases with _____ in temperature.
5. Soluble solids can be separated from liquids by _____

F. Choose the most appropriate answers.

1. Butter can be obtained from milk or curd by
a. boiling. b. churning. c. freezing. d. None of these
2. Which of these is a constituent of crude oil?
a. Diesel b. Tar c. Kerosene d. All of these
3. Sieving is done when the constituents of a mixture have particles of different
a. mass. b. colour. c. size. d. colour.
4. Soluble solids can be separated from liquids by
a. melting. b. evaporation. c. sublimation. d. loading.

