

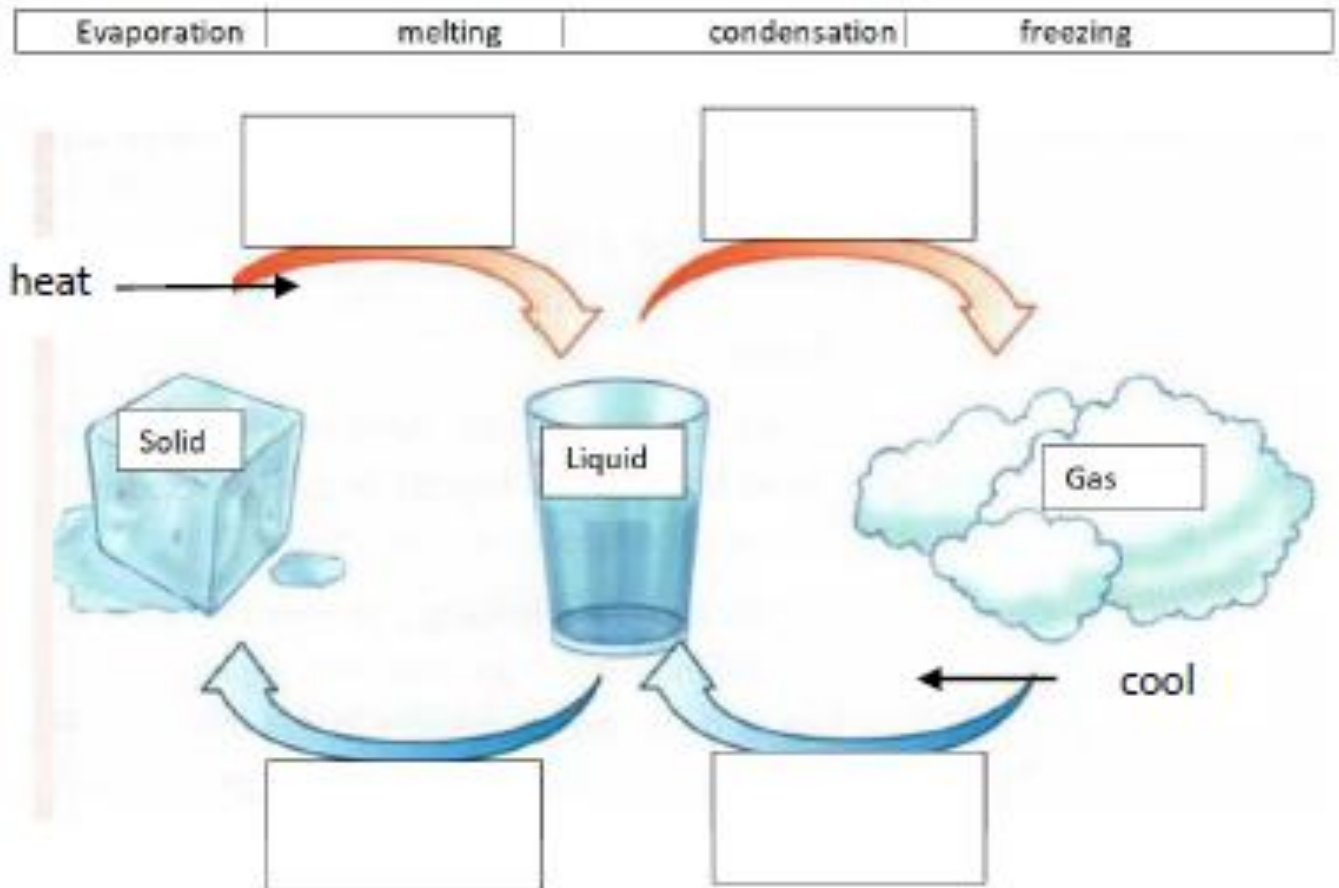
Carmel International School, Hosur

Grade – 7: Chemistry

I. Identify the states of matter for the following.



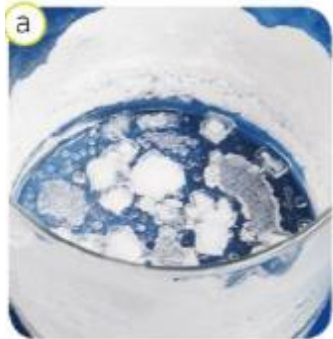
II. Identify the given inter - conversion of states of matter



III. Answer the following

1. Match the photos to the methods of separation.

1 magnetic separation 2 distillation 3 evaporation 4 filtration



2. Classify the objects in the photos into pure substances or mixtures.



3. In your own words, explain the difference between a homogeneous mixture and a heterogeneous mixture. Use the examples below as part of your explanation.



4. Look at the pictures and say if the changes to materials are physical or chemical.



IV. Identify the following as physical (*P*) or chemical (*C*) changes.

1. NaCl (Table Salt) dissolves in water.

2. Ag (Silver) tarnishes.

3. An apple is cut.

9. Milk sours.

10. Sugar dissolves in water.

11. Wood rots.

- | | |
|--|--------------------------------|
| 4. Heat changes H ₂ O to steam. | 12. Pancakes cook. |
| 5. Baking soda reacts to vinegar. | 13. Grass grows. |
| 6. Fe (Iron) rusts. | 14. A tire is inflated. |
| 7. Alcohol evaporates. | 15. Food is digested. |
| 8. Ice melts. | 16. Paper towel absorbs water. |

Worksheet – 2

A. Classify the changes involved in the following processes as physical or chemical changes:

1. Photosynthesis
2. Dissolving sugar in water
3. Burning of coal
4. Melting of wax
5. Beating aluminium to make aluminium foil
6. Digestion of food

B. State 'True' or 'False':

1. Cutting a log of wood into pieces is a chemical change
2. Formation of manure from leaves is a physical change
3. Iron pipes coated with zinc do not get rusted easily
4. Iron and rust are the same substances.
5. Condensation of steam is not a chemical change.

C. Fill in the blanks:

1. When carbon dioxide is passed through lime water, it turns milky due to the formation of
2. The chemical name of baking soda is
3. Two methods by which rusting of iron can be prevented are and
4. Changes in which only Properties of a substance change are called physical changes.
5. Changes in which new substances are formed are called changes.
6. Formation of crystals of sugar from a sugary syrup is a Chemical change.

Worksheet – 3

I. Fill in the blanks

1. It takes the shape of the container. _____

2. It is made up of particles/atoms of only one kind. _____
3. A Compound is same throughout in properties and composition. We call it _____
4. A Smallest unit of an element that has all the basic properties of the element. _____
5. It is made up of two or more kinds of atoms or compounds mixed in any proportion. _____
6. This molecule is made of two atoms of hydrogen and one atom of oxygen. _____
7. One example of an element. _____
8. The elements are placed in specific locations because of the way they look and act. _____
9. These substances will have a constant appearance, colour and density throughout the sample. _____
10. Objects that take up space and have mass. _____

II. Choose the word options and drag them into the correct places:

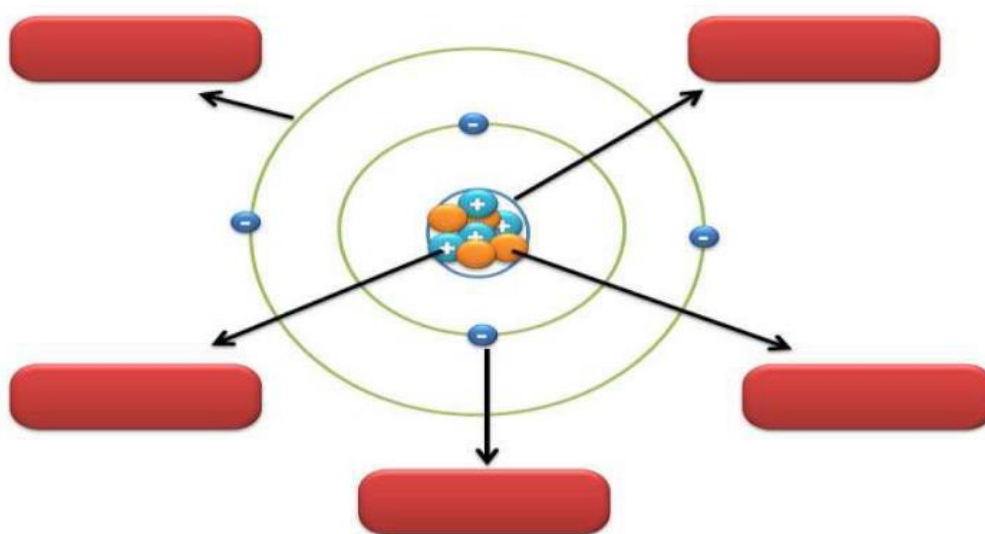
Nucleus

Orbit

Electron

Proton

Neutron



III. Give the symbols and valency of the following elements and radicals.

1. Potassium
2. Sodium
3. Hydrogen
4. Calcium
5. Aluminium
6. Magnesium
7. Zinc
8. Chlorine

9. Sulphur
10. Nitrogen
11. Oxygen
12. Ammonium
13. Bicarbonate
14. Nitrate
15. Bisulphate
16. Bisulphite
17. Hydroxide
18. Carbonate
19. Sulphate
20. Sulphite

IV. Write the chemical formulae of the following by criss-cross method:

A. Magnesium chloride

B. Calcium oxide

C. Copper nitrate

D. Aluminium chloride

E. Potassium nitrate

Worksheet - 4

A. Fill in the blanks.

1. Soft drinks and salt solution are examples of _____ type of mixture.

2. _____ is a method to separate light husk from heavier grains like wheat.
3. At construction sites, sand is separated by _____ from gravel & _____.
4. Sand and camphor can get separated from each other by _____.
5. _____ helps in loading by making light, suspended particles heavier.

B. Write True and False.

1. Muslin cloth and charcoal can be used as filters. _____.
2. Sand and sugar can be separated by sublimation. _____.
3. Sawdust mixed in water cannot be separated by sublimation _____.
4. Muddy water can give clean water by the process of filtration. _____.
5. Mixtures with different compositions are called heterogeneous. _____.

C. Match the following.

- | | |
|-----------------------|--------------------|
| 1. Centrifugation. | Immiscible liquids |
| 2. Separating funnel. | Harvested crops |
| 3. Threshing | Dairies |
| 4. Salt solution. | Hand picking |
| 5. Pulses, rice. | Evaporation |

D. Pick the correct option.

1. Naphthalene balls reduce in size due to
 - a. Filtration
 - b. Sublimation
 - c. Evaporation
 - d. None of these
2. Sublimation can separate mixture of
 - a. Iodine & camphor
 - b. Salt & water
 - c. Peas & rice
 - d. None of these
3. Oil and water can be separated by
 - a. Sedimentation
 - b. Separating funnel
 - c. Evaporation
 - d. All of these
4. Which of these can be used as filters?
 - a. Muslin
 - b. Filter paper
 - c. Cotton wool
 - d. All of these
5. Filtration can be used to separate insoluble solids from liquids like
 - a. Muddy water
 - b. Tea leaves
 - c. To make Tap water fit
 - d. All of these
6. Salt from saturated solution can be separated by
 - a. Filtration
 - b. Crystallisation
 - c. Sedimentation
 - d. None of these
7. Scrap iron is removed from garbage heap by
 - a. Magnetic separation
 - b. Filtration
 - c. Centrifugation
 - d. None of these
8. Which of these is not a pure substance?

a. Oxygen

b. Hydrogen

c. Air

d. Helium

9. Sieving can be used to separate

a. Tea leaves

b. Sand in gravel, pebbles

c. Pearls of diff. Sizes

d. All of these

10. For separating pebbles from pulses and rice, we use

a. Sieving

b. Hand picking

c. Winnowing

d. None

