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Lesson – 3

Structure of matter

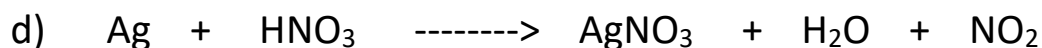
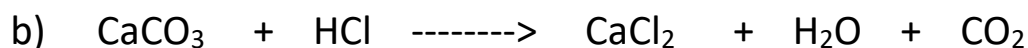
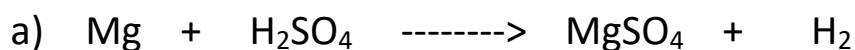
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**I. Word Focus**

1. elements
2. molecules
3. compounds
4. mixtures
5. atomicity
6. valency
7. constituent
8. equation

**II. Answer the following**

1. Balance the following chemical equations. (do on your own)



2. Write the formula of the given elements. (do on your own)

- a) Hydrogen -  $\text{H}_2$
- b) Helium -
- c) Oxygen -
- d) Nitrogen -
- e) Gold -
- f) Argon -

3. Differentiate between element and a compound. Give example.

<b>Element</b>	<b>Compound</b>
➤ It is made up of one kind of atom.	➤ It is made up of 2 or
➤ Cannot be broken down into simpler units.	➤ Can be broken down into simple units.
➤ Represented by symbols.	➤ Represented by formulas
➤ Eg: oxygen, hydrogen and carbon	➤ Eg: water, sodium chloride

4. Differentiate between compound and mixture.

<b>Compound</b>	<b>Mixtures</b>
➤ Elements are combined together chemically.	➤ Elements or compounds are not combined chemically but just mix together to form a mixture.
➤ The property of a compound is different from those of its element.	➤ It shows the properties of all its constituent elements.
➤ Its constituents can be separated by chemical methods only.	➤ Its constituents can be separated by physical methods.
➤ Constituents are present in fixed ratio.	➤ Constituents are present in any ratio.

5. Define

a) Valency

Valency is the combining capacity of an element or a group.

b) Atomicity

The number of atoms present in a molecule or of an element is known as its atomicity.