

- Is Matter Around Us Pure

1) Give major 5 differences between elements and compounds.

<u>Element</u>	<u>Compound</u>
Composed of same type of atoms.	Made up of by combination of two or more elements in definite mass ratio volume.
They are represented by symbols	They are represented by chemical formulas
It cannot be broken down into more simpler form by chemical methods.	The constituents cannot be separated by physical methods except by some chemical methods.
They exist in atomic / molecular form.	They exist freely in nature.
The elements shows same properties as of the atoms.	The constituting elements loose their properties in compounds.
Ex → H_2, N_2, O_2	Ex → $H_2O, NaCl, H_2SO_4$

2> Explain why we say H_2O as a compound whereas H_2 and O_2 as elements?

- We say $2H_2O$ as a compound because it is made by the chemical combination of elements H_2 and O_2 in a definite mass by ratio volume.

- The compound also do not shows any property of H_2 and O_2 .

- It is represented by a chemical formula.

- But we say H_2 and O_2 as elements because it is composed of only one type of atoms. Like H_2 is composed of only hydrogen atoms and O_2 is composed of only oxygen atoms.

- The elements H_2 and O_2 shows the same type of properties of the atoms of which they are composed of.

- They are represented by symbols. Like hydrogen element is represented by H_2 whereas oxygen is represented by O_2 .