

1.6.21

1. Give 5 major differences between elements and compounds.
2. Explain, why we say H_2O is a compound but H_2 and O_2 are elements?

1 <u>Compound</u>	<u>Element</u>
<ul style="list-style-type: none">• A compound contains atoms of diff. elements chemically combined together in a fixed ratio	An element is a pure chemical substance made of same type of atom.
<ul style="list-style-type: none">• They contain different types of atoms element fixed in a ratio arranged in a defined manner	Elements contain only one type of atom.
<ul style="list-style-type: none">• It can be broken into simpler sub substances	It can't be broken down into simpler _{sub.}
<ul style="list-style-type: none">• A huge variety of, limitless no. of chemical compounds can be created	There are about 117 elements that have been observed.
<ul style="list-style-type: none">• Ex - Water (H_2O) Sodium chloride ($NaCl$)	Ex - Hydrogen (H) Oxygen (O), Sodium (Na)

2-

When molecular hydrogen (H_2) and (O_2) are combined and allowed to react together, energy is released and the molecules of hydrogen and oxygen combine to form either water or hydrogen peroxide. In this oxidation, a molecule of hydrogen gas is ionized to two electrons and 2 protons.