

GENERAL CHEMISTRY

STANDARD 1.12

1.12: Identify and differentiate among the seven diatomic molecules

SEVEN DIATOMIC MOLECULES

- **Diatomic molecule** – compound composed of exactly two atoms
 - If those atoms are the same – the molecule is **homonuclear**
 - Seven homonuclear diatomic molecules exist in nature

Hydrogen
 H_2

Nitrogen
 N_2

Oxygen
 O_2

Chlorine
 Cl_2

Fluorine
 F_2

Bromine
 Br_2

Iodine
 I_2

When alone, these atoms only exist as homonuclear diatomic molecules and are referred to as the **Dirty 7**.

In compounds, these elements can exist as individual atoms when considering bonding.

When asked for chemical symbols for these seven, remember the subscript 2