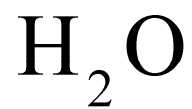


# Molecules and Molecular Compounds

Interpreting Chemical Formulas





Use the highlighter to select the compounds that are composed of 2 nonmetals.

Chemical formulas arranged in a grid:

H <sub>2</sub> O		HCl		NaF
	CO <sub>2</sub>			
			LiO	
CH <sub>4</sub>	MgO			
		NH <sub>3</sub>		NaCl

Drag this to the target to reveal the answers.



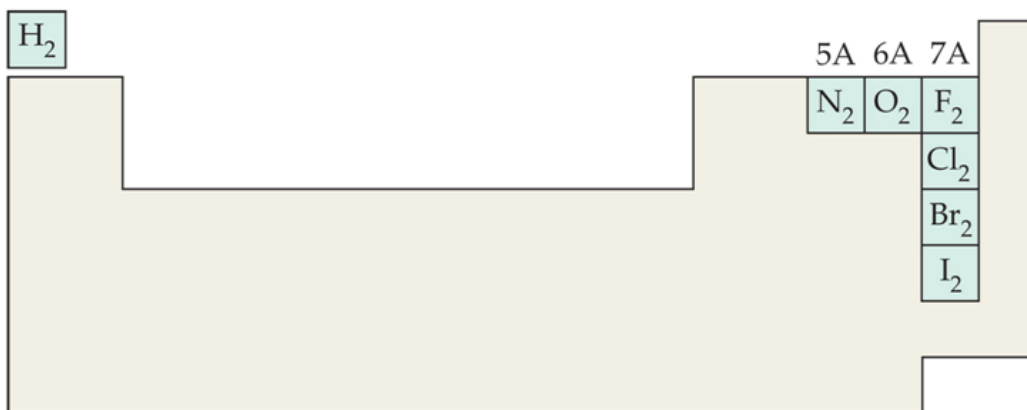
### Review Valence Electrons

1							8	
	2		3	4	5	6	7	
Li	Be	B	C	N	O	F	Ne	

# Molecular Compounds

- Occurs between 2 nonmetals
- Molecular compounds are held together by covalent bonds.
- 
- Covalent bonds are formed when a pair of electrons are shared between two atoms.
- 
- The Electrons in the bond are simultaneously attracted to the two nuclei.

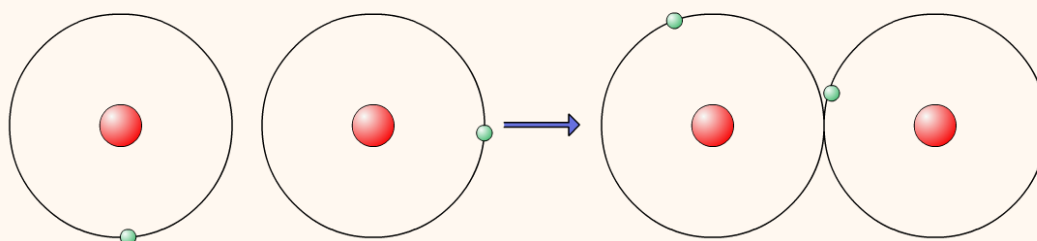
There are seven elements on the Periodic table that are found in their elemental state as diatomic molecules





# Sharing electrons

## 2 Hydrogen Atoms

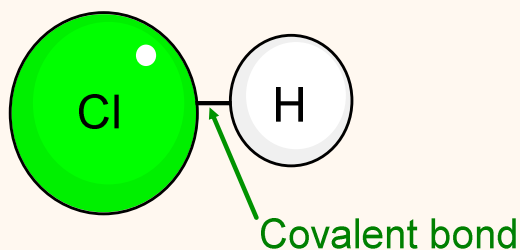


The electrons are now being shared by both atoms, and they both have a full outer shell.



# The covalent bond

When atoms share electrons, we call it a covalent bond.



Lewis Dot Diagram

Structural Diagram

Draw Structural and Lewis Dot Diagrams for each of the Following

Chlorine gas,

Oxygen gas,

Nitrogen gas

Covalent Bonds can have multiple bonds,

**Single Covalent Bond**- chemical bond resulting from sharing of an electron pair between two atoms.

**Double Covalent Bond**- chemical bond resulting from sharing of two electron pairs between two atoms.

**Triple Covalent Bond**-chemical bond resulting from sharing of three electron pairs between two atoms.

