

covalent Bonding

Name: _____

Date: _____

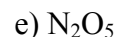
Hour: _____

Information: Terminology

Recall that an ionic bond results from the combination of a metal and a nonmetal. A covalent bond is the type of bond between two nonmetals. Covalent bonds are formed by neutral atoms that share electrons rather than by charged ions. When a compound is formed by sharing electrons, the compound is called a molecule or molecular compound. It is important to note that ionic compounds are not called molecules. The largest class of molecules are called organic molecules. Carbon is the distinguishing mark of organic compounds.

Critical Thinking Questions

1. Circle any of the following compounds that would properly be called a “molecule”.



Information: Naming Covalent Compounds

There are several prefixes used to name molecules. The name “carbon oxide” is not sufficient because carbon and oxygen sometimes form CO₂ and sometimes CO. Prefixes are necessary to distinguish between them.

Formula	Name
N ₂ O ₄	dinitrogen tetraoxide
SF ₆	sulfur hexafluoride
XeCl ₅	xenon pentachloride
SO ₃	sulfur trioxide
CO	carbon monoxide

Critical Thinking Questions

2. Fill in the table to indicate which prefix is used to represent the numbers. The first one is done for you.

Number	Prefix
1	mono
2	
3	
4	
5	
6	

