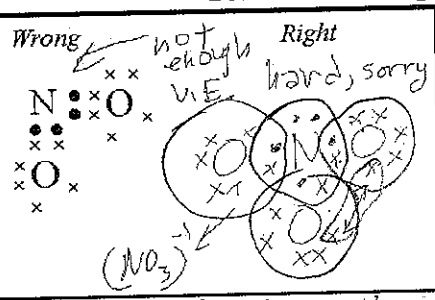
Name: _____ COM4

Period: _____

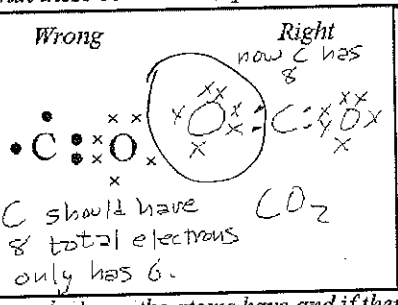
1. X's B	A. A bond of negatively and positively charged atoms.	1. Electrolyte D	A. When 4 valence electrons are shared.
2. Covalent C	B. Used instead of dots to show a different atom's valence electrons.	2. Double Bond A	B. Used instead of dots to simplify the writing on bonds. Means 2 electrons.
3. Ionic A	C. A bond where electrons are shared.	3. Triple Bond C	C. Shows 6 valence electrons being shared.
4. Diatomic Molecule E	D. Number of electrons each atom in a covalent compound has after sharing.	4. Line (—) B	D. Something dissolved in water that allows electricity to flow.
5. 8 Valence Electrons D	E. A molecule of two atoms of the same element.	5. Single Bond E	E. Occurs when 2 valence electrons are shared in a covalent compound.

Decide what's wrong with these covalent compounds and then draw them correctly..

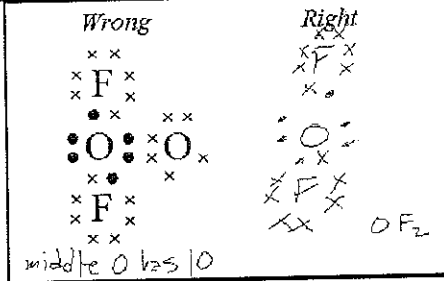
Wrong / Right



Wrong / Right



Wrong / Right



Using the short hand notation, count how many electrons the atoms have and if they have a full number of valence electrons.

P = # of electrons: 8 Full? Yes

C = # of electrons: 6 Full? N

Cl — # of electrons: 8 Full? Y

I = # of electrons: 9 Full? overfull (won't happen)

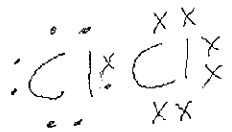
O — # of electrons: 7 Full? No

N = # of electrons: 7 Full? No

Si — # of electrons: 7 Full? NO

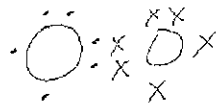
S — # of electrons: 8 Full? Yes

Draw the Lewis Dot Diagram for molecular Chlorine (Cl_2).



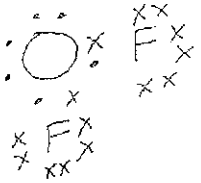
Short hand: Cl—Cl

Draw the Lewis Dot Diagram for molecular Oxygen (O_2).



Short hand: O=O

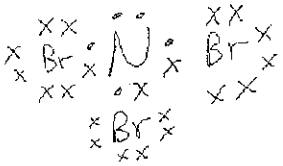
Using Lewis Dot Diagrams to predict how Oxygen and Fluorine will combine.



Short hand:

O—F
|
F

Using Lewis Dot Diagrams to predict how Nitrogen and Bromine will combine.



Short hand:

Br—N—Br
|
Br

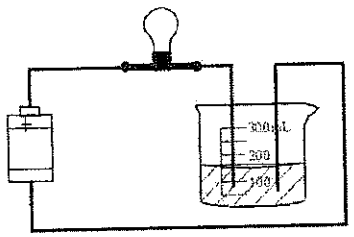
Are these Electrolytes? Yes or No?

NaCl	Y	Li_2S	Y
CO_2	N	Al_2O_3	Y
$MgCl_2$	Y	SeO	N
NBr_3	N	FeO	Y
BeO	Y	$Li(NO_3)$	Y

In this setup, is the dissolved compound ionic or (covalent)?

How do you know?

Light is off — so not ionic.



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