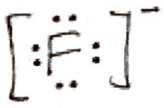
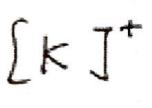
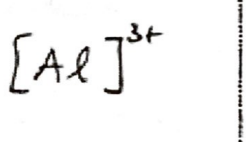
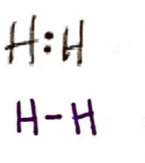
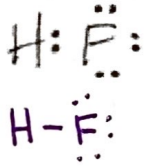
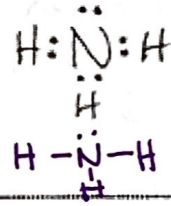
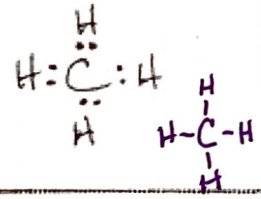
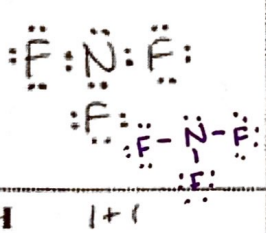
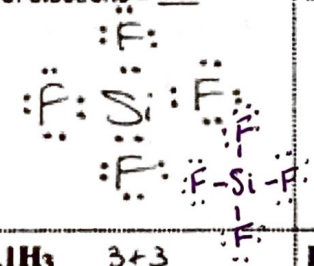
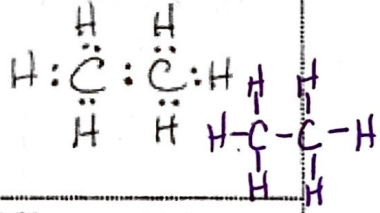
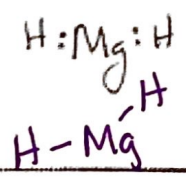
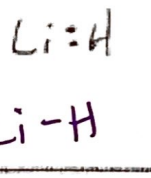
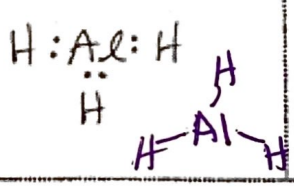
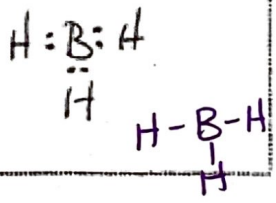
South Pasadena • AP Chemistry

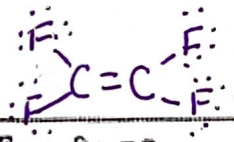
Name Groups (KEY)
Period ___ Date __/__/__ "LEWIS"

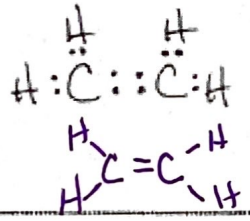
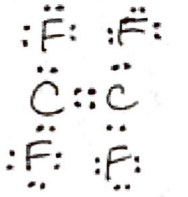
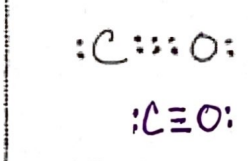
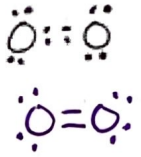
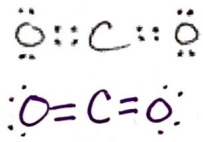
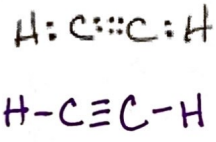
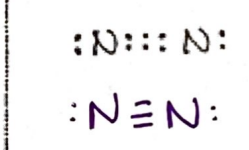
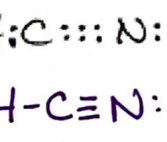
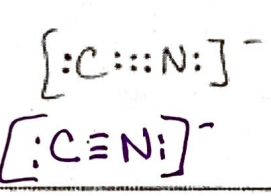
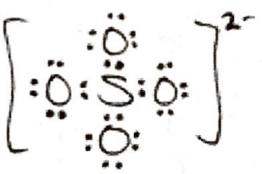
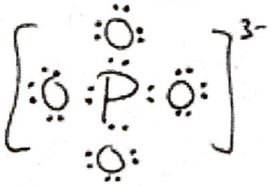
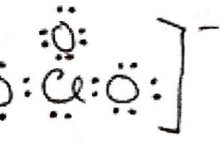
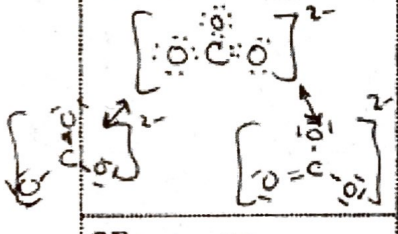
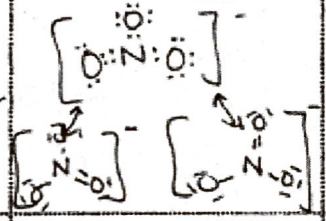
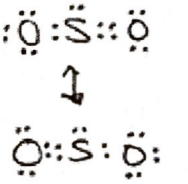
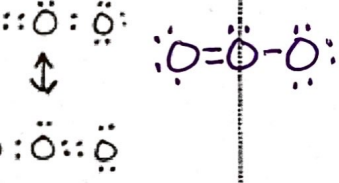
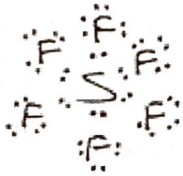
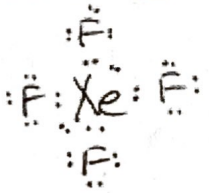
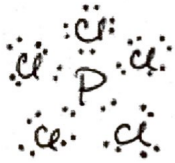
5 • Chemical Bonding

LEWIS STRUCTURES

Indicate the # of VALENCE electrons for each species. Write the correct Lewis electron dot structure for each.

F # of electrons = 7 	**O** # of electrons = 6 	**K** # of electrons = 1 	**Al** # of electrons = 3 
F^- 7+1 # of electrons = 8 	**O^{2-}** 6+2 # of electrons = 8 	**K^+** 1 - 1 # of electrons = 0 	**Al^{3+}** 3 -3 # of electrons = 0 
F_2 7+7 # of electrons = 14 	**H_2** 1+1 # of electrons = 2 	**HF** 1+7 # of electrons = 8 	**NH_3** 5+3 # of electrons = 8 
CH_4 4+4 # of electrons = 8 	**NF_3** 5+21 # of electrons = 26 	**SiF_4** 4+28 # of electrons = 32 	**C_2H_6** 8+6 # of electrons = 14 
MgH_2 2+2 # of electrons = 4 	**LiH** 1+1 # of electrons = 2 	**AlH_3** 3+3 # of electrons = 6 	**BH_3** 3+3 # of electrons = 6 



C_2H_4 8+4 # of electrons = 12 	**C_2F_4** 8+28 # of electrons = 36 	**CO** 4+6 # of electrons = 10 	**O_2** 6+6 # of electrons = 12 
CO_2 4+6+6 # of electrons = 16 	**C_2H_2** (H C C H) 8+2 # of electrons = 10 	**N_2** 5+5 # of electrons = 10 	**HCN** 1+4+5 # of electrons = 10 
CN^- 4+5+1 # of electrons = 10 	**SO_4^{2-}** 6+24+2 # of electrons = 32 	**PO_4^{3-}** 5+24+3 # of electrons = 32 	**ClO_3^-** 7+18+1 # of electrons = 26 
CO_3^{2-} 4+18+2 # of electrons = 24 	**NO_3^-** 5+18+1 # of electrons = 24 	**SO_2** 6+12 # of electrons = 18 	**O_3** (O O O) # of electrons = 18 
SF_6 6+42 # of electrons = 48 	**XeF_4** 8+28 # of electrons = 36 	**PCl_5** 5+35 # of electrons = 40 	**SeF_4** 6+28 # of electrons = 34