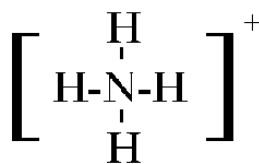
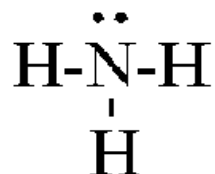
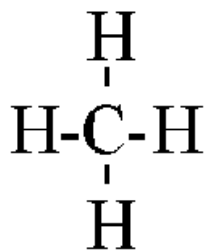
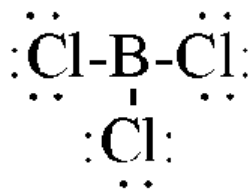
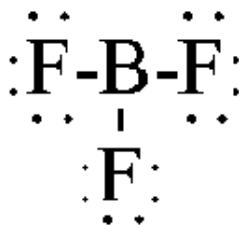
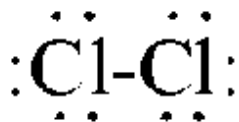
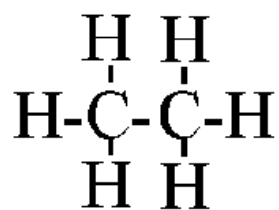
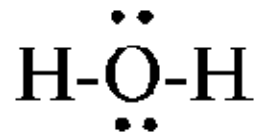


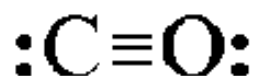
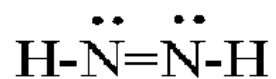
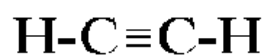
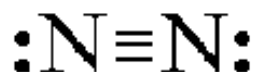
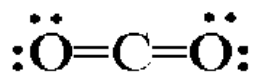
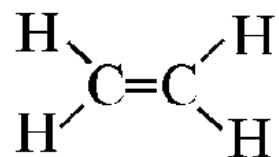
Lewis Dot Structures

Use Guides 1-3 to draw the Lewis dot structures for the following:

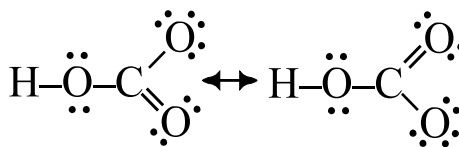
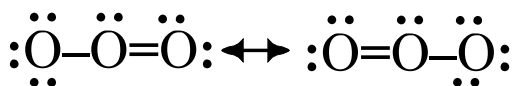
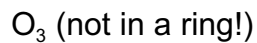
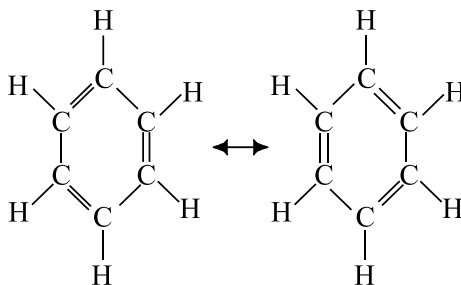
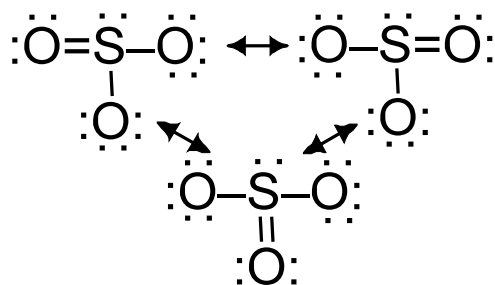
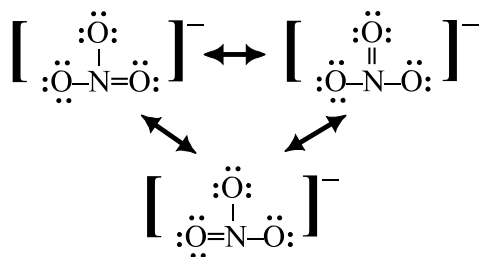
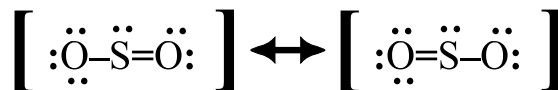
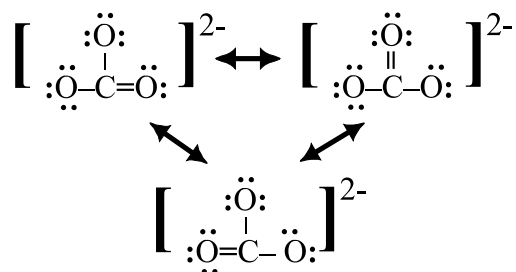


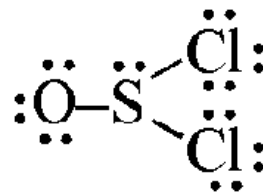
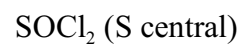
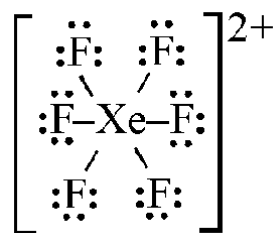
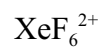


Use Guides 1-4 to draw the Lewis dot structures for the following:



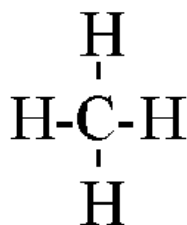
Use Guides 1-5 to draw the Lewis dot structures for the following:





Give the electronic and molecular geometries about the central atom for the following:

A) CH₄

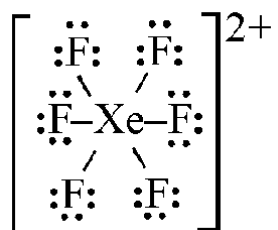


hybrid = sp³

electronic geometry = tetrahedron

molecular geometry = tetrahedron

B) XeF₆²⁺



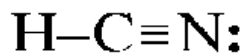
hybrid = sp³d²

electronic geometry = octahedral

molecular geometry = octahedral

C) HCN

(Note: check comments on multiple bonds)

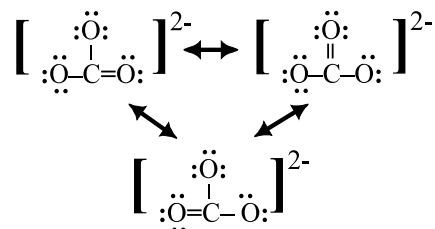


hybrid = sp

electronic geometry = linear

molecular geometry = linear

D) CO₃²⁻

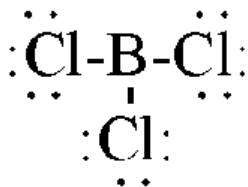


hybrid = sp²

electronic geometry = trigonal

molecular geometry = trigonal

E) BCl_3

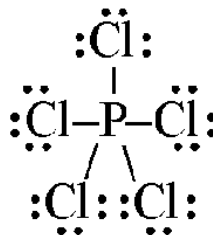


hybrid = sp^2 _____

electronic geometry = trigonal _____

molecular geometry = trigonal _____

F) PCl_5

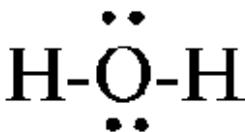


hybrid = sp^3d _____

electronic geometry = trigonal pyramid

molecular geometry = trigonal pyramid

G) H_2O

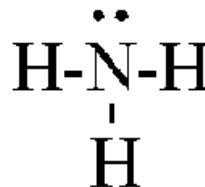


hybrid = sp^3 _____

electronic geometry = tetrahedral _____ electronic geometry = tetrahedral

molecular geometry = bent 109

H) NH_3

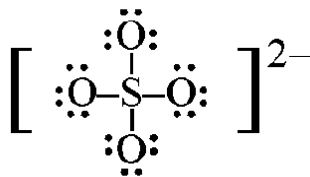


hybrid = sp^3 _____

electronic geometry = tetrahedral

molecular geometry = trigonal pyramid

I) SO_4^{2-} ion

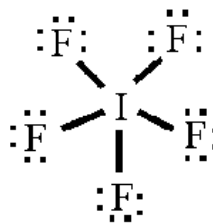


hybrid = sp^3 _____

electronic geometry = tetrahedral

molecular geometry = tetrahedral

J) IF_5 molecule

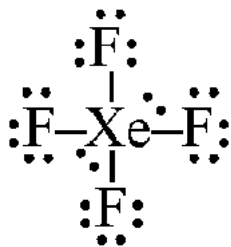


hybrid = sp^3d _____

electronic geometry = trigonal bipyramid

molecular geometry = trigonal bipyramid

K) XeF₄ molecule

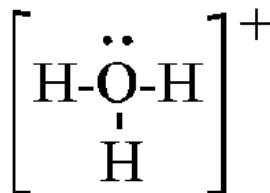


hybrid = sp³d²

electronic geometry = octahedral

molecular geometry = octahedral

L) H₃O⁺ ion



hybrid = sp³

electronic geometry = tetrahedral

molecular geometry = trigonal pyramid

M) IF₃ molecule

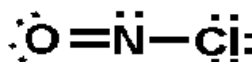


hybrid = sp³d

electronic geometry = trigonal bipyramid

molecular geometry = T-shaped

N) ClNO molecule (N is central - Cl terminal)

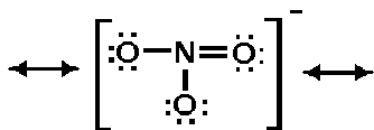


hybrid = sp²

electronic geometry = trigonal

molecular geometry = bent 120°

O) NO₃⁻ ion
molecule

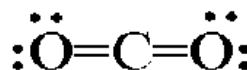


hybrid = sp³

electronic geometry = tetrahedral

molecular geometry = trigonal pyramid

P) CO₂



hybrid = sp

electronic geometry = linear

molecular geometry = linear