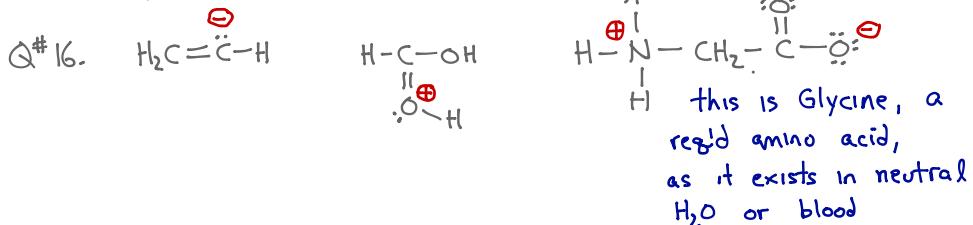
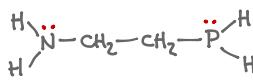
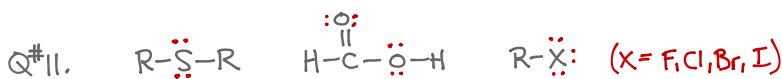
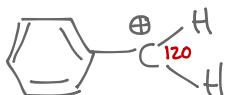
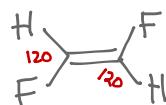
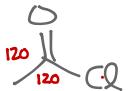


# ACTIVITY #3 - SELECTED ANSWERS

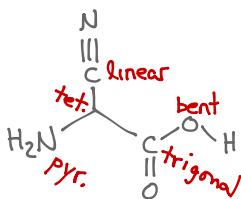
Q#8.  $\ddot{\text{F}}-\ddot{\text{F}}$ :



Q#25.



Q#30.



Q#34.  $1.34\text{\AA}$        $\text{C}=\text{C}$

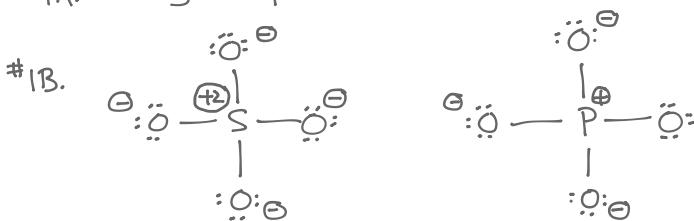
Q#36.  $\text{H}_3\text{C}^{1.53}\text{---CH}_3$       vs.       $\text{H}_2\text{C}^{1.34}=\text{CH}_2$       vs.  $\text{HC}\equiv\text{CH}^{1.18}$

Q#37

# ACTIVITY #3, PG 2

## CHALLENGE

#1A. S P



#1C. Lazy? Misinformed?

#2A. "Normal" VSEPR predicts  $109^\circ$  for HCH angle in R-CH<sub>2</sub>-R. But our "enhanced" VSEPR says if R-C domains are close together, the H-C domains can be farther apart.  $\Rightarrow >109^\circ$  predicted for HCH angles in  $\triangle$  &  $\square$

#2B. The R-C domains are closer together in  $\triangle$  so the HCH angles are predicted to be even larger.

#2C.  looks "normal" (just like propane). The HCH angles increase as predicted:  (normal) <  (odd) <<  $\triangle$  (very odd)

