

Guided Notes: Bond Polarity

Name: _____ Pd.: _____

1. polar bond:
 - a. What do we use to show "slightly positive"?
 - b. What do we use to show "slightly negative"?
 - c. What electronegativity difference means the bond is polar?
 - d. **Examples:** Show all work for the examples below.
 - i. HCl
 - ii. H₂O
2. What is a nonpolar bond?
 - a. What electronegativity difference means the bond is nonpolar?
 - b. **Examples:** Show all work for the examples below.
 - i. CH₄
 - ii. N₂

Check For Understanding: Show all of your work in determining if the following bonds are polar or nonpolar.

P—H

C—F

O—S

Molecular Polarity

1. What is a molecule?
2. What is a polar molecule?
 - a. List the polar shapes.
 - b. **Examples:** Show all work for the examples below.
 - NH₃
 - H₂O

What 2 things must you look at for a molecule to determine its polarity?

- i. _____
- ii. _____

3. What is a nonpolar molecule?
 - a. List the nonpolar shapes.
 - b. **Examples:** Show all work for the examples below.
 - i. CO₂
 - ii. CCl₄
 - c. What must be the same in order to consider a molecule symmetrical?

Check for Understanding: Decide whether each of the following molecules is polar or nonpolar (show your work!):

SCl₂

H₂S

CF₄

CS₂