

Classifying Chemical Bonds



Complete the following assignment and submit your work to the dropbox in the virtual classroom <http://gedsb.elearningontario.ca> (follow the News item's directions).

1. Which of the following bonds is the most polar?

- a. CF
- b. CN
- c. CS
- d. GeBr
- e. SbF

2. What type of intermolecular force is found between:

Watch and note the different intermolecular forces <https://youtu.be/pBZ-RiT5nEE>

- a. F_2 and Cl_2
- b. 2 water molecules

3. Which ONE of the following substances is LEAST ionic?

- a. NaCl
- b. KCl
- c. $CuCl_2$
- d. $SbCl_4$

4. Calculate the difference in electronegativity (ΔEN) for the bonds that would form between the groups of atoms listed below. State whether the bond would be ionic, polar covalent or non-polar covalent.

- a. N and Cl
- b. B and Br
- c. B and F
- d. Al and O
- e. N and F
- f. C and H
- g. Mg and I
- h. Li and S
- i. C and F
- j. Na and N

5. Explain why HBr is a polar molecule, but H_2 and Br_2 are not.



Please do a self-check, make corrections and do a reflection. **Re-submit the corrected file** (put check or x's beside your answers and tally marks). Please also include a comment about each question that you struggled with or got wrong - How did you arrive at the wrong answer? (ex. Q2 was wrong because I started to balance the equation but had the wrong formula for water so I couldn't balance it). Also give what your next steps in learning will be.

****You must resubmit the file in order to complete the Activity.**