

Intermolecular Forces Online Tutorial

Part 1:

1) Open the webpage found at

<http://www.wwnorton.com/college/chemistry/chemistry3/chemtours.aspx>

2) Select **Chapter 10** from **Chem Tours**.

3) Complete the following in order to better understand intermolecular forces of attraction.

View the on-line "Chapter 10 Intermolecular Forces Tutorial"

1. Explain the differences between **inter**molecular forces and **intra**molecular forces.
2. Which of the following ionic compounds would exhibit the strongest ion-ion attractions: KF, CaF₂, CaO, CaS or SrS. Site the 2 factors that supports your answer.
3. Describe the type of intermolecular attractions that occur between polar molecules. What factor(s) effect the strength of this type of attraction?
4. What conditions are necessary for "hydrogen bonding" to occur?
5. What are "dispersion forces"? Explain how they form, their relative strength and the type of molecules which are held together by this type of attraction.

6. Solve the 4 "Practice Questions" and justify your answers.

Part 2:

1) Open the webpage found at

<http://www.wisc-online.com/Objects/ViewObject.aspx?ID=GCH6804>

2) Complete the following in order to better understand intermolecular forces of attraction.

1. Why do London dispersion forces form from temporary dipoles while dipole-dipole forces form from permanent dipoles?

2. How does boiling point relate to molecular weight? Explain why.

3. Describe hydrogen bonding.

4. How do intermolecular forces relate to viscosity?

5. Write the answers to the last two questions here with a quick explanation why each is correct: