Chem 11H Summer Assignment

There are 4 assignments for this summer. You will keep your textbook, solutions guide and lab manual for the summer as your resources (keep them in excellent condition!). If you have Q’s, you can email me: Leslee.Ingratta@sd41.bc.ca, but I will only be checking periodically throughout the summer, more often closer to Sept. Please also check my website: [ingrattachemistry.weebly.co](http://www.shimistry.tk)m. There are also lots of great videos from Crash Course Chemistry on youtube.

1. Read **Ch. 26 on Organic Chemistry** and take your own **notes**. The key points you should note are:
	1. write and name alkanes, alkenes, alkynes, and their isomers.
	2. functional groups: the halogens, the alcohols, and the carboxylic acids.
2. Read **Ch.13 on Properties of Solutions** and take your own **notes**. The key points you should note are:
	1. the energy changes the occur in the solution process in terms of the solute-solute, solvent-solvent, and solute-solvent attractive forces and the role of disorder in the solution process
	2. rationalize the solubilites of substances in various solvents in terms of their molecular structures and intermolecular forces.
	3. The effect of pressure and temperature on solubilities
	4. Define mass percentage, parts per million, mole fraction, molarity, molality, and calculate concentrations in any of these units.
	5. Colligative properties: Raoult’s Law, vapor-pressure lowering, boiling point elevation, freezing point depression, and osmotic pressure.
	6. How are colloids different from a true solution.

Do the **Review Worksheets** for Chapters 26 and 13. We will go over them the first few classes in September and have a test.

1. The new AP curriculum focuses more on analyzing lab data. One example is analyzing data from photoelectron spectroscopy (PES) which helps us understand how we can figure out the electron structure of atoms
2. Read the info about photoelectron spectroscopy
3. Watch a youtube video if it is not clear to you what PES is and how to analyze data: https://www.youtube.com/watch?v=NRIqXeY1R\_I
4. Do the Questions and check your answers at the end
5. Review what you learned last year!
	1. Do the Sectional Tests 1,2, and 3. Check your answers. (Note: For sectional test 3, we did not cover questions relating to chapter 12)
	2. Memorize the ion charges, polyatomic ions and charges, elements with multiple charges, solubility table, patterns to the activity series, and patterns to electronegativity from your Chem11 Data booklet

*\*\*No late assignments in September!! If they are not done, I will transfer you out of the class!*

Otherwise, have a great summer, get out and enjoy the sunshine, and I’ll see you again in September!

☺ L. Ingratta