Molecular Modeling Worksheet

1. Draw a molecule of ethane on your paper. Then use ChemDraw to draw it in your computer.

- 2. Write the chemical formula for ethane.
- 3. What is its molecular weight?
- 4. What is its elemental analysis?

5. Draw a molecule of ethanol on your paper. Then use ChemDraw to draw it in your computer.

- 6. Write the chemical formula for ethanol.
- 7. What is its molecular weight?

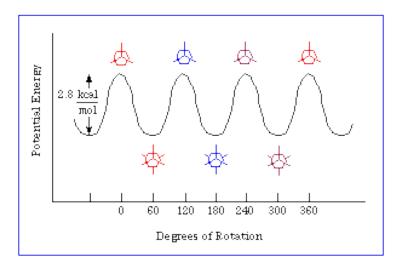
8. What is its elemental analysis?

- 9. Describe a Newman projection. Use ChemDraw to draw it in your computer. What is the purpose of Newman projections?
- 10. What is the difference between staggered and eclipsed? (Please draw in ChemDraw.)

11. Draw the Newman projection of ethanol in the staggered conformation.

12. Draw the Newman projection of ethanol in the eclipsed conformation.

13. In the energy diagram below, how does energy relate to staggered and eclipsed? Please explain.



14. Next to each number below, label the pictured conformations as staggered or eclipsed.

