WORKSHOP on ORGANIC ISOMERS NAME:
Include this cover sheet.

Exercises:

1. Draw 2-methylpentane. Make a molecular model of 2-methylpentane and convince yourself that 4-methylpentane is the same molecule.

2. Draw all the structural (chain) isomers of $C_6H_{14}$. How many are there? Verify that they are all different using molecular models. Name the isomers.

3. Draw and name all the positional isomers of propanol. The symmetrical isomer is commonly called isopropanol or rubbing alcohol.

4. Draw the functional isomers of $C_3H_8O$ and $C_4H_8O$. Verify that they are all different using molecular models. Name the isomers.

5. Draw and name the cis- and trans- isomers of a) dibromoethene and b) 1-chloro-1-propene. Compare molecular models of each pair of isomers.

6. Compare pairs of molecular models of the + and – forms of lactic acid. Convince yourself that these molecules cannot be superimposed: that they are mirror images of each other. Do the same for the D- and L- forms of galactose. Draw 2-chloro-3-methylbutane and 2-chloro-2-methylbutane. Which of these molecules has an optical isomer? Draw it.