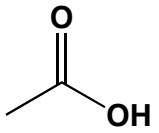
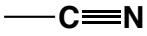
The X group attached to the cyclohexane ring for Part 3 of the molecular modeling exercise.

-F	fluoro	Abbott, D'Agostino, Hoffman-Klaucke, S. Nguyen, Missaggia, Ricci
-Cl	chloro	Adams, Dabrowski, Jackson, P. Kelly, Mortelliti, Sargent
-Br	bromo	Albrecht, Daigneault, Jeffrey, Liquori, Newton, Sarma
-OH	hydroxyl	Barrasso, Dewey, Jing, Lloyd, T. Nguyen, Schnitzler
-COOH	carboxylic acid	Brazier, Driscoll, K. Kelly, Lytle, Novikova, Smith
-CH3	methyl	Bresnahan, Dullea, Kilkenny, Marina, Okamoto, Tordella
-CH2CH3	ethyl	Caffrey, Estabrook, Kozloski, Martin, Orite, Truebridge
-CH(CH3)2	2-propyl	Caissy, Galagher, Lawson, McKellick, Park, McMillian
-C(CH3)3	tert-butyl	Cheney, Ghazi, Lee, McKeon, Polleys, Wu
-CN	cyano or nitrile	Crocker, Hawkesworth, Leppo, Michaud, Lammi, Wysoczanski



carboxylic acid group



cyano group

Note that you may not see good agreement with experimental values for some groups. Molecular mechanics has limitations. If the calculated value for your group does not agree well with the experimental values, comment on it in your conclusions.