



THE ART OF LOGICAL THINKING

The art of logical thinking is essential to mastering chemistry. Although it is important to be familiar with many chemical facts so that you can utilize the language of chemistry effectively, it is even more important to be able to assimilate these facts and organize them in logical ways so they can be used to solve problems. The art of logical thinking is not difficult to acquire but it does require practice. Try out your own ability on the following logic problem.

During a chemistry class, five pairs of students are working on five different experiments at a row of lab stations numbered 1-5 consecutively. From the information given below, can you tell what each student's experiment is, at which lab station he or she is working, and who his or her lab partner is?

Clues:

1. The halogens experiment, and all the other experiments, is performed by lab partners of the opposite sex. For example, Ann Ion's lab partner is a boy.
2. Milli Liter and Ben Zene work together.
3. Charles Law does not work at lab station #2.
4. Molly Cool and her partner work between station #3 and the station occupied by Barry Um.
5. Phyllis Pipet, building a spectroscope, is not at #4.
6. Milli Liter does not work next to Molly Cool.
7. Earl N. Meyer works at #4.
8. Ionic reactions are being carried out at #5.
9. Hal Ogen is building a small-scale balance.
10. Only one of the Um twins, Francie or Barry, works at station #1 doing an acid-base titration.