

## General Qual Information

In the *Qual Zone* you will be working ALONE. No partners! You will share equipment but that is all.

You must pass a computer *Formula Club* test, 8 out of 10 before you may start Qual Labs. Practice well at home!

We'll have a computer formula test (8/10) before you can start lab. To keep it moving, you get to go until your **third** error. Then you must let someone else go. You will work on the *Formulas Drill Sheet* while waiting for the next try. Your instructor will stamp your *Check Off Sheet* when you pass (8/10).

The instructor will show you how to make a *Flow Sheet* which is the abbreviated directions for performing the *Procedures*. You will use this and not a printout of the on-line procedures because 1) It takes too long to read all the details in the on-line procedures, and 2) You need to make notes of what the precipitates and ion colors look like along with any other observations.

You will first perform an analysis of a *Known* solution which contains all of the elements of its group. This is a test of your flow sheet and laboratory techniques.

You must have the instructor check off your flow sheet before you start each group (there are four groups). Then you may begin the lab.

When you get a positive result for each element, bring it to the instructor to have it checked off on your *Qual Check off Sheet* printout.

When you are checked off for all of the elements in a group, you will be ready to take the steps to acquire the *Unknown* for that group. The unknown results will be reported on a card to be turned in and graded.

Here is how you get your *Unknown*:

1. Your *Flow Sheet* will have been checked off.
2. Your *Knowns* will have been checked off.
3. You will pass a computer test on the *theory* of the group. Review your *Theory Notes*, you may not use them on the tests.
4. You will pass a chalk board test on the *Equations* of the group. Review your *Theory Notes*, you may not use them on the tests.
5. For the first group, the *Silver Group*, you will pass a *Formula Test* on the computer. Qual demands correct formulas!
6. You will bring a clean, dry un-labeled 75mm test tube to the instructor.

**Note:** Because we have a limited number of computers, you will be allowed one try to pass at a time. If you fail, you must allow a waiting person to go next. You may go into *Research Mode*, while you wait to try again.

### The Penalty Box:

If you commit a *Qual Crime*, you will be required to pass a *Formula Test* on the computer before returning to lab. Ah, a blessing in disguise. The *Qual Crimes* are posted on the wall.

**WARNING:** Anyone doing unauthorized experiments (screwing around with the chemicals) will be removed from lab for the rest of the year!

Qual is fun! Prepare well.