Objectives

- ☐ Observe chemical reactions
- ☐ Sequence the activity of specific metals
- ☐ Predict if reactions will occur between certain substances

Pre-Lab

- ☐ Read the procedure below.
- ☐ Make a data table reflecting each solution used as a column heading and each metal used as a row heading.

Procedure

- ☐ Using a 24-well plate, add 5-6 drops of $Al(NO_3)_3$ solution to each well in column #1.
- ☐ Repeat the addition of 5-6 drops to columns #3, and 5, of the well plate with $Cu(NO_3)_2$, and $Mg(NO_3)_2$,, respectively.
- ☐ Add a strip of Al foil to each well with solution in row A.
- ☐ Observe what happens in each well. Record your observations in your data table after 5, 10 and 15 minutes.
- ☐ Add a piece of Cu wire to each well with solution in row B.
- ☐ Observe what happens in each well. Record your observations in your data table after 5, 10 and 15 minutes.
- ☐ Add a piece of Mg ribbon to each well with solution in row C.
- ☐ Observe what happens in each well. Record your observations in your data table after 5, 10 and 15 minutes.
- ☐ Turn the well plate over on a piece of paper towel, place all metallic pieces in the paper towel and place in a trash can. Wash the well plate with tap water and turn upside-down on a paper towel to drain.
- ☐ Wash your hands thoroughly with tap water (and soap, if desired) before returning to your desk.

**DUE IN A NEAT AND ORDERLY FORMAT AT THE END OF CLASS FOR 30 PTS.**

1. In which wells did chemical reactions occur (i.e. A1, C3, etc.)?
2. Which metal reacted with the most solutions?
3. Which metal reacted with the fewest solutions?
4. What is the order of activity of your three metals from most active to least active?
5. How does your activity series compare with the accepted activity series?
6. Write a balanced chemical equation for each reaction that occurred.