**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Calculating Moles, Grams and Atoms**

**Guiding Question:** Can you measure various quantities of known substances?

**Materials for each group:** Electronic balance, three 600ml beakers labeled “NaCl”, “water”, and “ammonium sulfate”, spoons/spatulas, beakers, 2-3 plastic pipettes in the “water” container, empty colorless/clear plastic cup, red plastic cup, and blue plastic cup.

**Procedure:** Take your lab sheet and proceed with the instruction on it. You must go up to the instructor’s desk after each task with your sample and your work in order to check for accuracy. Your teacher will score you.

 Attempt 1 Attempt 2 Attempt 3

1. Measure out 0.135 moles of salt (NaCl) into a **clear**, dry cup. 10 8 6

 Show work:

2. Put 6.02 x 1023 molecules of H2O into a **red** dry cup. 10 8 6

 Show work:

3. Obtain a sample of copper metal. 10 8 6

 Determine how many moles it contains. Show work:

4. Measure out and check for accuracy with your instructor 10 8 6

 0.031 moles of aluminum. Show work:

5. Measure out 0.0427 moles of ammonium sulfate into 10 8 6

 a **blue**, dry cup. Show work:

6. Obtain a sample of Magnesium metal. 10 8 6

 Determine how many moles it contains. Show work: