Name: _____ Date: _____ Period: _____

I. **TITLE**: Finding Isotopes (*The same element or not the same element? That is the question!*)

II. **PURPOSE**: The purpose of this lab is to identify isotopes of the same element, write isotopic notation correctly, name isotopes, and calculate average atomic mass using percent abundance data.

III. **SAFETY**: Be careful with the cards and do not write on them. Move around the room carefully to locate your fellow isotopes.

IV. **HYPOTHESIS**: Based on the information given on your card, predict the average atomic mass of your element.

V. **PROCEDURE**
   A. Find students who have cards that prove you are all the same element.
   B. Then, get to know your fellow isotopes by filling out the data table together – one line per isotope.. Do <u>not</u> fill out the cards!
   C. Next, calculate the average atomic mass for your element using percent abundance data provided on the cards of all your isotopes. [See VII and VIII below for further instructions.]

VI. **DATA TABLE**

Element	Isotope Name	Isotope Symbol	Number of p+	Number of n^0	Mass Number	Percent Abundance

VII. **CALCULATIONS: Show work on the reverse side of this page.**
   ① Calculate the Average Atomic Mass for your element using necessary information from the table above. The formula for the calculations is in your notes.
   ②Textbook Practice: p. 129 - #76, #77, #78

VIII. **QUESTIONS: Answer questions on the reverse side of this page.**
   ① What determines whether or not atoms belong to the same element? ② Define the term isotopes.