DATA AND OBSERVATIONS

PART I

Table 2. Key for Part I (Provided by Teacher)	
Color	**Mass**

Table 3. Abundance Data		
Isotope	**Number of Atoms**	**Percent of Total (%)**

Table 4. Class Data	
Average Atomic Mass from Other Groups	

DATA AND OBSERVATIONS (CONTINUED)

PART II

Show your calculations here.

Table 5. Isotopic Distribution

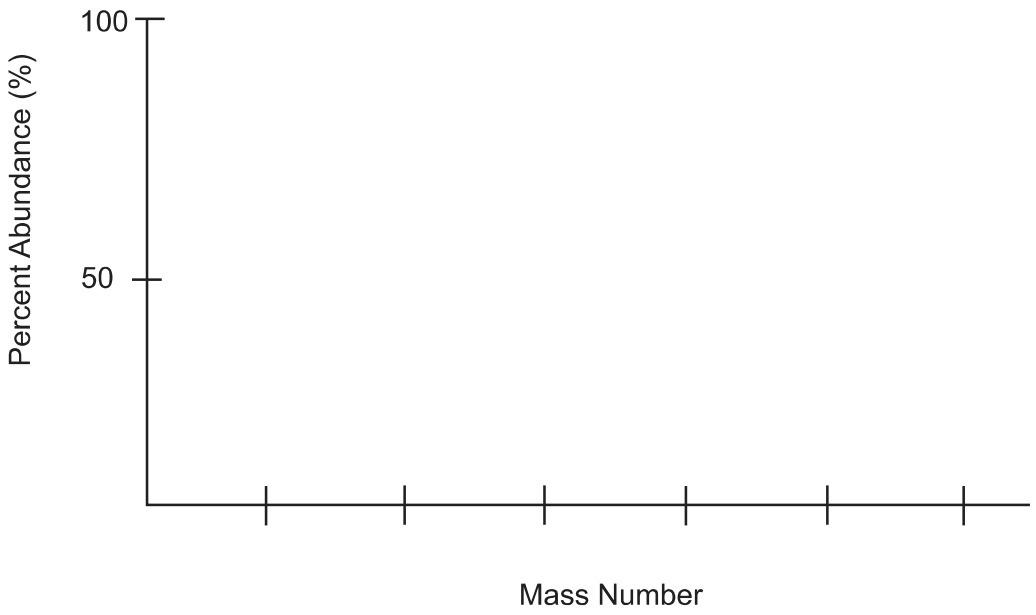
Color	Mass	Number of Atoms

ANALYSIS

PART I

1. Attach your digital picture from Part I, if applicable.
2. Using the axes shown in Figure 6, prepare a bar graph of the relative abundance of the isotopes in your sample from Part I.

Figure 6. Relative abundance of isotopes



3. How would the mass spectrum of your element compare to the bar graph you produced in Question 2?

4. Without doing any calculations, predict the average atomic mass of your element and explain your reasoning.

ANALYSIS (CONTINUED)

5. Calculate the atomic mass of your element.

6. What is the range of atomic mass values from the class? Why are they not all the same? What procedural changes could be made to produce a more accurate average?

7. Rank the isotopes in your sample from those that would be most deflected to least deflected in a mass spectrometer. Explain your reasoning.

PART II

Attach your digital picture from Part II, if applicable.