Name _____   Period _____

Worksheet on Atomic Structure

Fill in the following tables:

Species	atomic #	mass #	protons	neutrons	electrons
$^{39}_{19}K$					
$^{4}_{2}He$					
$^{16}_{8}O$					
$^{52}_{24}Cr$					
$^{20}_{10}Ne$					
$^{22}_{10}Ne$					

Species	atomic #	mass #	protons	neutrons	electrons
He^{2+}					
	5				2
			47		
Ca^{2+}					
		235			
			99		

Part II: Calculations of Isotopes

1. You are given the mass spectrograph of the isotopes of neon. It states that you have 91% of neon 20, 0.2% of neon 21 and 8.8% of neon 22. Calculate the average atomic mass of neon.

2. There are two major isotopes of silver. They are silver 107 whose mass is 106.9509 which accounts for 51.83% of naturally occurring silver. The other isotope is silver 109 whose mass is 108.9047. What is the mass of naturally occurring silver?

3. The mass spectrograph of copper shows two bands. One at 62.9296 that has a width of 0.69200 and one that is 0.30800 at 64.9278. Interpret this data and find the mass of naturally occurring copper.

4. Boron 10 accounts for 20% of naturally occurring boron at 10.0129 AMU. The other isotope has a mass of 11.00931 AMU. What is the mass of natural boron?