Ch 2/ PowerPoint Study–02-1Atomic Theory of Matter __Name:_____

Answer these questions as you are watching the videos. They are due in class.
These questions are not just for you to answer but also to prepare you for the exam.
Make sure you understand what you are writing and not just copy from the text book. **Show all work.**

1) Which law is supported by each of the following statements? (The laws are: conservation of mass, definite proportion, and multiple proportions.)
   a) In hydrogen peroxide there are 15.9 grams of oxygen per 1.00 g of hydrogen and in water there are 7.94 grams of oxygen per 1.00 g of hydrogen.

   b) The total mass of reactants (starting materials) is the same as the total mass of products when a chemical reaction is carried out in a closed system.

   c) In any sample of a given compound, the mass proportion of each element is the same.

2) Who was the scientist to discover the electron? _____

3) Which scientist calculated the electronic charge? _____

4) Briefly explain the gold foil experiment? What was the purpose of doing this experiment?

5) What are the three subatomic particles and the charges on the particles found in an atom?

6) Which two atomic particles are equal in number? _____

7) What is an isotope?

8) Fill in the following table with the appropriate name and/or symbol of the element. Classify them in their group, if applicable.

Neon	Ca	P	Iron
Ti	Tin	I	Zinc

9) Write the number of all the three particles in the following table. Remember to round off to whole numbers. Number of particles are always in whole numbers, never in fractions.

Element	Electrons	Protons	Neutrons
Silicon			
Sulfur – 31 (atomic mass 31)			
Ca^{2+} Calcium lost $2e^-$			
N^{3-} Nitrogen gained $3e^-$			