Title: Atom in a Bag Laboratory Exploration					
Introduction: In this activity, you will answer the following questions using beads that form the particles in the "atom in a bag".					
electrons in an a 2. On the periodic t	What are the relationships, if any, between the numbers of protons, neutrons, and electrons in an atom? On the periodic table, what information indicates the numbers of protons, neutrons and electrons in an atom?				
Materials:					
	s identified as differer s identified as unknov				
Procedure:					
1. Examine a labeled atom bag. What kinds of beads are inside? Describe them in terms of size and color.					
2. Fill in the table below for your 6 identified atom bags, naming the atom according to its label, and counting the number of each type of bead in the bag.					
Name of atom	Number of blue	Number of clear	Number of red		
	beaus	beaus	beaus		
 Examine a labele of size and color. Fill in the table b label, and countil 	elow for your 6 ident	ified atom bags, nami h type of bead in the l	ng the atom according pag.		

Student Sheet

Name:

3.	neutron) subatom	or of bead stands for a particular subatomic particle (electron, proton, or . Use the periodic table to figure out which color bead stands for which ic particle. Blue=
	b.	Clear=
	c.	Red=

4. Now examine the unknowns A-F. For each bag, determine the number of each kind of subatomic particle, and then identify the atom in the bag.

Unknown	Number of Protons	Number of Neutrons	Number of Electrons	Identity of Atom
A				
В				
С				
D				
Е				
F				

Analysis:

1.	In terms of size, charge, and number, what similarities are there between protons
	and neutrons? What differences are there?

- a. Size
- b. Charge
- c. Numbers in an atom

2.	and el	ns of size, charge, and number, what similarities are there between protons ectrons? What differences are there? Size
	b.	Charge
	c.	Numbers in an atom
3.	and ne	ns of size, charge, and number, what similarities are there between electrons eutrons? What differences are there? Size
	b.	Charge
	c.	Numbers in an atom
4.	Which	types of particles are the largest, contributing the most mass to an atom?
5.		e periodic table to answer the following: Which number on the periodic table tells you the number of protons in an
		atom?
	b.	Which number on the periodic table tells you the number of electrons in an atom?
	c.	How do you find the number of neutrons?
6.	Which choice	subatomic particle identifies an atom as a certain element? Justify your .