****Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_

**Inside Atoms**

***General Outcome:***

***Can I describe ideas used in interpreting the chemical nature of matter?***

1. The three kinds of subatomic particles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. The nucleus is composed of \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ with the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_moving in a cloud around the atom.
2. State the charge of each subatomic particle.

a. proton \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. neutron \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. electron \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Most of the atom is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Most of the mass of an atom is located in the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. The number of electrons is \_\_\_\_\_\_\_\_\_\_\_\_\_\_to the number of protons.
4. Atoms have a net charge of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. Atoms of each element have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_number of protons in the nucleus.

e.g.

hydrogen atoms have\_\_\_\_\_\_\_\_\_\_\_\_\_ proton in their nucleus.

helium atoms have\_\_\_\_\_\_\_\_\_\_\_\_\_ protons in their nucleus.

oxygen atoms have\_\_\_\_\_\_\_\_\_\_\_\_\_ protons in their nucleus.

1. Very large nuclei (larger than uranium with 92 protons) are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. There are only about \_\_\_\_\_\_\_\_\_\_\_ naturally occurring elements.
3. Various arrangements of electrons cause \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. How do atoms become more stable? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_