**Extra Review Practice – PS Unit 7 – Periodic Table and Atomic Theory**

**Vocabulary Review**

**Parts of an Atom/Types of Atoms:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ The smallest particle of an element

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Has all the mass of an atom, found in the center, is dense

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ A subatomic particle found in the nucleus that does not have a charge

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ A subatomic particle with a positive charge

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ The smallest subatomic particle that has almost no mass and a negative charge

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ This is what you call electrons that are in the outermost orbital

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Protons, neutrons and electrons are all types of these

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ The protons and neutrons put together equal this, what Mendeleev used to organize his periodic table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ This is the number of protons an element has

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ An atom with a charge, that has gained or lost electrons

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ An atom with a different number of neutrons

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ This is the unit for the atomic mass of an atom

**Properties of Elements:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ A mixture of two or more metals

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ A group of elements that conduct electricity well, are the largest type of element represented on the periodic table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Elements that exhibit this property are able to conduct well, but won’t get nearly as hot as many metals do… thus it makes for great computer chips

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ This is a property many metals have that allow them to be pulled into wires

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ This is a property that many metals have that allow them to be hammered into sheet

**Parts of the Periodic Table:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ A chart of elements used to organize them into families with similar properties is known as a (don’t over think this one lol)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ This family of elements do not react with other elements as they are already stable

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ A row of elements (going across) is known as a

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Vertical columns of elements (going up and down) are known as a

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ This is the largest FAMILY of elements on the periodic table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Nitrogen is this type of element

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fluorine is a part of this family

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ This is the most reactive family of METALS

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ This is the most reactive family of NON-METALS

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Neon is a part of this family

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Lithium is a part of this family

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Sulfur is a part of this family

**Discovery of the Atomic Theory:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ This was one of the first scientists who discovered atoms and thought they were tiny solid balls

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ This was the scientist that discovered electrons with a cathode ray tube

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ This was the scientist who discovered the nucleus with a gold foil experiment

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ This was the scientist who came up with the theory that electrons orbited around a nucleus

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ This was the scientist who organized the elements into the periodic table

**Application of Atomic Theory**

**Using the Periodic Table:**

1. Answer the following questions about Fluorine:
   1. Symbol:
   2. Atomic Number:
   3. Atomic Mass:
   4. Number of Protons:
   5. Number of Neutrons:
   6. Number of Electrons:
   7. How many energy levels would the Bohr model have?
   8. How many valence electrons would it have?
2. Answer the following questions about Aluminum:
   1. Symbol:
   2. Atomic Number:
   3. Atomic Mass:
   4. Number of Protons:
   5. Number of Neutrons:
   6. Number of Electrons:
   7. How many energy levels would the Bohr model have?
   8. How many valence electrons would it have?
3. How many electrons does a Beryllium ion (Be 2+) have?
4. How many electrons does a Fluorine ion (F-) have?
5. How many electrons does a Sodium ion (Na+) have?
6. How many electrons does a Oxygen ion (O2-) have?
7. How many neutrons does Uranium-238 have?
8. How many neutrons does Uranium-234 have?
9. How many neutrons does Carbon-12 have?
10. How many neutrons does Carbon-14 have?