Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Homeroom: \_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_ **2.2**

**All Matter is Made Up of Atoms (SPI.9.1)**

|  |  |
| --- | --- |
| ***Key Point*** | ***Notes*** |
| **Atom** | * An **atom** is the smallest unit of an element that keeps the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of that element.
* “Atom” is from the Greek word “atomos” which means “not able to be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.”
* In other words: an atom is the smallest particle of an element that can be divided and still be the same \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!
* All atoms are made of the same 3 *subatomic* (smaller than an atom) *particles*:
* \_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_
 |
| **Models of the Atom** |  |
| **Nucleus** | * The **nucleus** is the *positively charged centered* of the atom.
* Inside the nucleus is:
1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 |
| **Energy Levels (Orbitals, Electron Cloud)** | * Surrounding the nucleus in an “electron cloud” is the \_\_\_\_\_\_\_\_\_\_\_\_\_!
* The electron cloud can also be referred to as \_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_
* This is located \_\_\_\_\_\_\_\_\_\_\_ of the nucleus.
 |
| ***Macintosh HD:Users:cjohnson:Desktop:Screen shot 2011-09-07 at 7.05.25 AM.png* Proton** | **The proton is:** |
| ***Macintosh HD:Users:cjohnson:Desktop:Screen shot 2011-09-07 at 7.07.32 AM.png* Neutron** | **The neutron is:** |
| ***Macintosh HD:Users:cjohnson:Desktop:Screen shot 2011-09-07 at 7.05.44 AM.png* Electron** | **The electron is:** |
| **So What?** | *Write a summary of what you learned today here and WHY it is important to you and the world around you:* |

**“We Own This” (Guided Practice):** *White-Board Practice*

Write down notes from the examples in class here:

 **“I Own This” (Independent Practice):**

1. What is the name of the three subatomic particles in an atom?
2. Label the parts of the atom in the diagram below:



1. Where are electrons located?
2. What is the main difference between protons and neutrons?
3. What is the majority of the atom made up of?
4. Describe the “electron cloud.”