1. Define the following terms and on the diagram to the right label the words in bold:



Element:

Atom:

**Proton**:

**Neutron**:

**Electron**:

**Nucleus:**

2. On your periodic table:

1. Outline your metals, non - metals, and metalloids in three different colors
2. Circle your noble gases



3. Define atomic number and atomic mass then look at the periodic table on your desk to complete the table on the next page.



|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Element Name | Element Symbol | Atomic Number | Atomic Mass | Protons | Electrons | Neutrons |
| Beryllium |  |  |  |  |  |  |
| Sodium |  |  |  |  |  |  |
| Calcium |  |  |  |  |  |  |
| Silver |  |  |  |  |  |  |
|  | Au |  |  |  |  |  |
|  |  | 26 |  |  |  |  |
|  |  |  | 101 |  |  |  |

4. Define Valence electrons and draw the Electron Dot Diagrams for each of the Elements below.

**Valence Electrons:**



**5. Why do elements bond? What are the three types of bonds?**