* **I know the parts of an atom including where they go and what charge they have.**

1. Atom -
2. Proton -
3. Neutron -
4. Electron -
5. Electron Shell -
6. Valence Electrons
7. Draw and label a picture of a lithium atom.   
   (3 protons, neutrons and electrons)

* **I know the difference between a balanced atom, an isotope and an ion.**

1. Balanced Atom –
2. Isotope –
3. Ion -

6. Label the parts.

* **I know how to read the periodic table**.

Carbon

1. Name:

6

C

1. Atomic Number:
2. Symbol:

12

1. Mass Number:

6

1. Atomic Mass:

* **I can explain why atoms bond.**

12.011

* + Write a short description on why atoms bond.
* **I can explain two ways that atoms fill their outer energy levels**
  + 1.  
    2.

|  |  |  |  |
| --- | --- | --- | --- |
| **Type of Bond** | **Occurs Between** | **Strength** | **Bonds By** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

* **I can list the three types of chemical bonds, what they occur between, their strength and how they bond.**
* **I know the difference between polar and non-polar molecules, how hydrogen bonds form and what cohesion and adhesion mean**

1. Polar Molecule –
2. Non-Polar Molecule –
3. Hydrogen Bond –
4. Cohesion –
5. Adhesion –

* **I can identify the properties of water.**

1. An insect walking on water or being able to float paper clips is called \_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Plants “sucking up” water: \_\_\_\_\_\_\_\_\_\_\_\_.
3. Ice floating in water: \_\_\_\_\_\_\_\_\_\_\_\_\_
4. Cooler around water: \_\_\_\_\_\_\_\_\_\_\_\_\_
5. Sugar and Salt dissolve in water:\_\_\_\_\_\_\_\_\_\_\_\_\_

* I can read the pH scale

1. A solution with a pH of 0-6.9 is called a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. A solution with a ph of 7 is called \_\_\_\_\_\_\_\_\_\_\_\_\_
3. A solution with a pH of 7.1 – 14 is called a(n)\_\_\_\_\_\_\_\_\_\_\_\_\_

* **I Know what a macromolecule, polymer and monomer are**

1. Macromolecule –
2. Monomer –
3. Polymer -

* **Be able to list the 4 macromolecules, their polymers, monomers, and elements and at least one function**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Macromolecule** | **Monomer** | **Polymer** | **Elements** | **Function** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

* **I can explain the characteristics and function of an enzyme**
* Write a short paragraph explaining how enzymes work like coupons for the body’s energy consumption.

P:\_\_\_\_\_\_\_\_

N:\_\_\_\_\_\_\_\_

E:\_\_\_\_\_\_\_\_

15 protons, 16 neutrons, and 18 electrons \_\_\_\_\_\_\_\_\_

56 protons, 82 neutrons, and 54 electrons \_\_\_\_\_\_\_\_\_

13 protons, 14 neutrons, and 10 electrons \_\_\_\_\_\_\_\_\_