**Pre-Lab Notes**

* The goal for atoms is to become \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Sometimes becoming stable means they will \_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, call these \_\_\_\_\_\_
* Atoms can also become stable by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with other atoms, this sharing is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* When there is a subscript for a molecule like the 2 in H2O… the number tells you how many atoms of the element right before it there are, if there isn’t a number… assume there is only 1

**Today we will practice bonding using the four most common elements in living organisms:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Atom** | **Number of Valence Electrons** | **Number of Bonds** | **Marshmallow Color** |
| Carbon |  |  |  |
| Nitrogen |  |  |  |
| Oxygen |  |  |  |
| Hydrogen |  |  |  |
| Delicious |  |  |  |

**Examples of how to draw elements bonding together:**

Single bond Double bond Triple bond Multiple on same element

**Two Examples together:**

CH4  H2O

**Reminders:**

* 1 toothpick =
* 2 toothpicks =
* 3 toothpicks =
* 4 toothpicks = WRONG (none of our atoms will create four bonds with the same atom)
* DO NOT break toothpicks, eat marshmallows (other than orange) or fool around in the lab… misuse of lab or lab equipment = zero for the assignment! **You should be interacting with your group only the whole time in lab.**
* Molecules/Compounds are NOT flat (like your drawings), they are 3D so make sure your structures are 3D.
* Today is going to require team work and trial and error, hang in there, participate and start to imagine molecules as 3D structures
* **I’ll be checking structures in table order, if you are waiting for me to come around, move on to the next drawing and structure (I can check more than one at once when I visit)!**