Name:

Basic Atom Practice

Biology 16-17

1. Parts of an atom



1. Ionic Bonding

|  |  |  |
| --- | --- | --- |
| Element | Electrons | Valence Electrons |
| Potassium (K) |  |  |
| Iodine (I) |  |  |
| Calcium (Ca) |  |  |
| Sulfur (S) |  |  |

To show the ionic bond:

* Draw the symbols for the ions
* Show me the charge on the ion including the number of electrons gained/lost.
* Put the elements together in the correct proportions to make a new compound.
1. Potassium (K) + Iodine (I)
2. Calcium (Ca) + Sulfur (S)
3. Covalent Bonding

|  |  |  |
| --- | --- | --- |
| Element | Electrons | Valence Electrons |
| Oxygen (O) |  |  |
| Hydrogen (H) |  |  |
| Fluorine (F) |  |  |
| Bromine (Br)  |  |  |

To show the covalent bond:

* Draw the symbol for the elements
* Draw dots to represent the number of valence shell electrons around the symbol
* Show sharing by circling and connecting lonely electrons from the different elements.
* Share electrons until each element is happy.
* Put the elements together in the correct proportions to make a new compound.
1. Hydrogen and Bromine
2. Oxygen and Fluorine

You Decide: Ionic or Covalent

If Ionic:

* Draw the symbols for the ions
* Show me the charge on the ion including the number of electrons gained/lost.
* Put the elements together in the correct proportions to make a new compound.

If Covalent:

* Draw the symbol for the elements
* Draw dots to represent the number of valence shell electrons around the symbol
* Show sharing by circling and connecting lonely electrons from the different elements.
* Share electrons until each element is happy.
* Put the elements together in the correct proportions to make a new compound.

Barium (Ba) and Chlorine (Cl) Hydrogen (H) and Carbon (C)

Fluorine (F) and Fluorine (F) Rubidium (Rb) and Oxygen (O)