**Objectives**:

-I can describe and compare properties of compounds, mixtures, or solutions.

-I can explain the different between compounds, mixtures, and solutions.

-I can write and interpret chemical formulas.

-I can draw Lewis Structures

-I can describe how to separate mixtures.

**I. Compounds**-

Examples:

A. Compounds always combine in the      .

Example: Carbon dioxide always combines 1 carbon atom with 2 oxygen atoms

B. Compounds always have the      throughout.

Example: Water in the air, ground, or my glass is always H2O.

C. Properties of compounds are      .

Example: Salt is made of sodium and chlorine

Sodium is a soft, silvery metal that reacts violently with water.

Chlorine is a poisonous, green-yellow gas.

Salt is white solid that dissolves in water and is safe to eat.

**II. Chemical formulas**-

A. Subscript tells how many of that atom.

Example H2 means      .

B. Numbers in front tell you how many molecules.

Example: 2H2O means

**III. Lewis Structures (Dot Diagrams)-**       (ONLY SHOWS VALENCE ELECTRONS)

Example: Look at Chart in Science Folder

**IV. Mixtures-**

Example- Lemonade, Milk, Jello, Salad Dressing, Rocks

A. Mixtures can be homogeneous or heterogeneous.

Homogeneous-

Example: Lemonade

Heterogeneous-

Example- Rock

B. Mixtures have properties based on the

C. Substances in mixtures keep      .

D. Substances do NOT have      .

D. Mixtures can be      .

Example: boiling, magnets, mixing/spinning

**V. Solution**-      .

Example: Salt Water

“Often called homogeneous mixtures.”

A. Solute-

Example: Salt or Sugar

B. Solvent-

Example: Water

C. Concentration-

D. Solubility-       “How much can dissolve?”