

Bonding Basics-Guided Practice

Objective: Practice drawing Lewis structures to show ionic and covalent bonding.

Materials:

- Periodic Table
- 2 markers (colored pencils, pens)
- paper punched holes (28 of one color and 4 of another color)

Ionic Bonds

Follow these general steps...

1. Write the symbols of each element.
2. Create a Lewis Dot structure for each element using the colored paper punched holes.
3. Draw an arrow (or more if needed) to show the transfer of electrons.
4. Move the electrons to the new location.
5. Determine the charge for each ion.
6. Make sure the sum of the oxidation numbers equals zero.
7. Use markers to draw the electrons as you remove the colored paper punched holes.

Lithium Fluoride, LiF

Li F

Magnesium Bromide, MgBr₂

Br Mg Br

Covalent Bonds

Follow these general steps...

1. Write the symbols of each element.
2. Create a Lewis Dot structure for each element using the colored paper punched holes.
3. Rearrange the electrons (paper punched holes) to pair them up with the other atom.
4. Draw circles to show the sharing of electrons.
5. Make sure each atom has eight electrons within the drawn circle. Except for hydrogen.
6. Use markers to draw the electrons as you remove the colored paper punched holes.

Water, H₂O



Carbon Tetrachloride, CCl₄

