

Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Bonding Basics- Covalent Bonds

#### What is a covalent bond?

1. Atoms \_\_\_\_\_ one or more electrons with each other to form the bond.
2. Each atom is left with a \_\_\_\_\_ outer shell.
3. A covalent bond forms between two \_\_\_\_\_.

Directions: With the element cards and colored chips create a model of the molecules that would form between the following elements. Draw a model of the molecule below for each example. Write the formula for each molecule in the space provided.

Example C1: Hydrogen + Chlorine

Example C2: 2 Hydrogen + Oxygen

Formula: \_\_\_\_\_

Formula: \_\_\_\_\_

Example C3: Chlorine + Chlorine

Example C4: Oxygen + Oxygen

Formula: \_\_\_\_\_

Formula: \_\_\_\_\_

Example C5: Carbon + 2 Oxygen

Example C6: Carbon + 4 Hydrogen

Formula: \_\_\_\_\_

Formula: \_\_\_\_\_

Challenge: What are some other covalent bonds that can be formed by the elements you see? Remember that you need two or more nonmetals to make a covalent bond. Write the chemical formula for the compound and its name if you know it.

Challenge 1:

Challenge 2:

Formula: \_\_\_\_\_

Formula: \_\_\_\_\_

Challenge 3:

Challenge 4:

Formula: \_\_\_\_\_

Formula: \_\_\_\_\_