Name	Period
Partner	Date

## Mole Ratio Model Building Lab

Procedure

Chemical equations represent what we call mole ratios. These are the ratios in which atoms come together and break apart in chemical reactions. The underlying premise of all reactions is the "Conservation of Atoms". You must have the same number of atoms on the right side as you have on the left side if a balanced chemical equation. No extras and no leftovers are allowed.

Balance the following equations. For the five reactions below you will be building models and then drawing pictures of them. You are encouraged to use the colored pencils.

1)  $\__C + \__H_2 \rightarrow \__CH_4$ 

Reactants \_\_\_\_\_

 $2) \underline{\qquad} N_2 + \underline{\qquad} H_2 \rightarrow \underline{\qquad} NH_3$ 

Reactants \_\_\_\_\_

 $3) \_\_C + \_\_O_2 \rightarrow \_\_CO_2$ 

Reactants \_\_\_\_\_

Products \_\_\_\_\_

Products \_\_\_\_\_

Products \_\_\_\_\_

 $4) \underline{CH_4} + \underline{O_2} \rightarrow \underline{CO_2} + \underline{H_2O}$ 

Reactants \_\_\_\_\_

 $5) \underline{Zn} + \underline{HCl} \rightarrow ?$ 

Products \_\_\_\_\_

Reactants \_\_\_\_\_

Products \_\_\_\_\_