SNC 2P
J. Kropac

Candy Balancing Equations Lab

Remember that the law of conservation of mass states that matter cannot be created or destroyed. The means the mass of products must equal the mass of reactions. You will model this using candy to represent atoms.

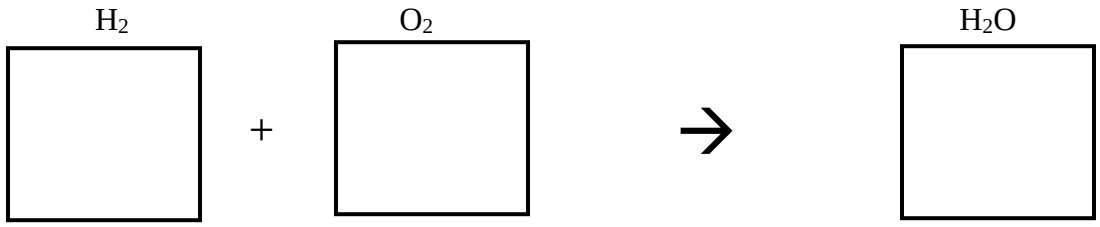
Directions:
1. Use the candy to model atoms.
2. Set up the reactants using the correct number of candies. Move the same candies to the product side. As they become more difficult you may need to set
up the products first and work backwards.
3. Set up the molecules and fill in the coefficients
4. Draw and color the equations that represent the reactions.

Data Table:

Atom	**O**	**H**	**Na**	**Cl**	**Ca**
Color:					
Number	12	8	4	4	2

When chemicals react, atoms are conserved. This means that there must be the same number of each atom on each side of the arrow.

Look at the reaction $H_2 + O_2 \rightarrow H_2O$



How many H candies are on the left side _____ , right side _____

How many O candies are on the left side _____, right side _____

Is the equation currently balanced? Yes/ No

Write the correctly balanced equation:

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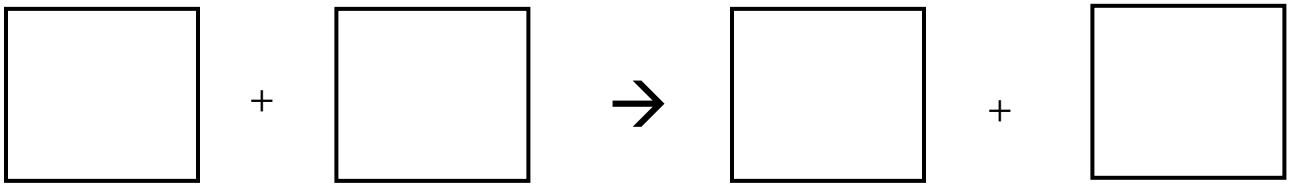
REACTION 2: Look at the reaction $NaCl + CaO \rightarrow Na_2O + CaCl_2$

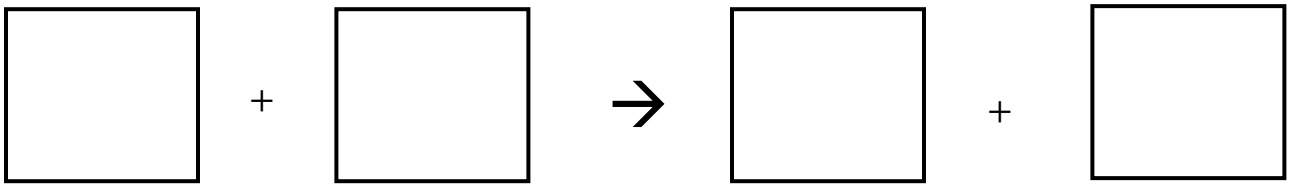
NaCl CaO Na_2O $CaCl_2$



Reaction 2: Write the balanced chemical equation

REACTION 3: Look at the reaction $NaOH + Ca \rightarrow Ca(OH)_2 + Na$

NaOH Ca $Ca(OH)_2$ Na



Reaction 3: Write the balanced chemical equation

Analysis:

1. What do the M & M's stand for in this lab?

2. What is the coefficient and what does it apply to?

3. What are the steps to balancing a chemical equation?

4. How does the Law of Conservation of Matter apply to chemical reactions?

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Balance the equation then write the final formula.

1. ___ H_2O + ___ SO_3 → ___ H_2SO_4

2. ___ H_2 + ___ Br_2 → ___ HBr

3. ___ C + ___H_2 → ___CH_4

4. ___ C + ___ O_2 → ___ CO

5. ___ H_2O_2 → ___ H_2O + ___ O_2

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