

# Balancing Chemical Equations

Target: Today I will be able to correctly balance a chemical equation, by using the appropriate coefficient. **Pg. 101**



# Quickwrite, Pg. 100



- Why can you change the coefficients and not the subscripts in a chemical equation? What do coefficients represent? What do subscripts represent? Why would we want to change the coefficients?

## Balancing Equations Using Models, Pg. 100

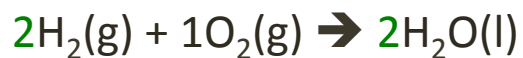
- For each of the following reactions, use the model kits to build the products.
- USING THE SAME BALLS, break and reform the reactants.
- Ensuring that conservation of mass is maintained, decide on the ratio needed of reactants AND products. These will be the coefficients.
- Use the table on the next slide
- Work with your lab partner(s)

# Table, Pg. 100



$\text{___ H}_2(\text{g}) + \text{___ O}_2(\text{g}) \rightarrow \text{___ H}_2\text{O}(\text{l})$		
	Reactants	Products
Drawing:		
$\text{___ N}_2(\text{g}) + \text{___ H}_2(\text{g}) \rightarrow \text{___ NH}_3(\text{g})$		
	Reactants	Products
Drawing:		
$\text{___ CH}_4(\text{g}) + \text{___ O}_2(\text{g}) \rightarrow \text{___ CO}_2(\text{g}) + \text{___ H}_2\text{O}(\text{l})$		
	Reactants	Products
Drawing:		

# Table, Pg. 100



	Reactants	Products
Drawing:		
$1\text{N}_2(\text{g}) + 3\text{H}_2(\text{g}) \rightarrow 2\text{NH}_3(\text{g})$		
	Reactants	Products
Drawing:		
$1\text{CH}_4(\text{g}) + 2\text{O}_2(\text{g}) \rightarrow 1\text{CO}_2(\text{g}) + 2\text{H}_2\text{O}(\text{l})$		
	Reactants	Products
Drawing:		

# Homework



- Read pg. 270-274, (make sure you read the examples)
- Study balancing equations and make a study guide, **pg. 102**:
  - Example: Write a procedure for balancing chemical equations in your own words. Apply your procedure to sample C, D, and E (beginning on page 270).



- Finish “A Voyage Through Equations. **Turn in Tues**
- **Note time spent in your study log.**
- **Turn in notebook and all missing work Tuesday**

