

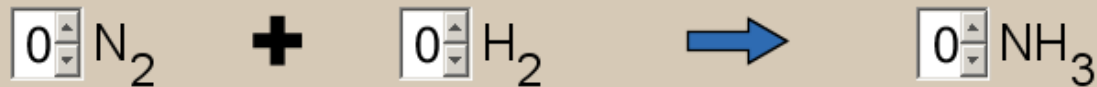



- Start:**
1.
  2. Click on the first link
  3. Click on the  button.
  4.  Explore the simulation. Be sure to click on everything.
  5. Try both  Balance Scales  Bar Charts
    - a. Talk about how they may be useful in the activity.
    - b. Fill in the box-




Tell me what the scale and bar charts are helping you do? What is the purpose of these tools?

Which one does your group prefer **and** why?




6.  Is this equation balanced? Explain. \_\_\_\_\_

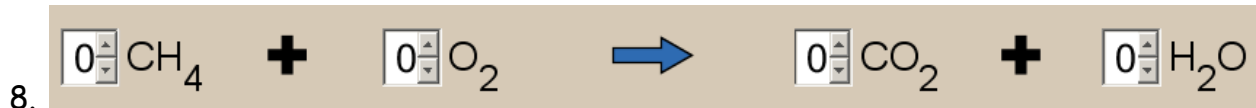
Change the coefficients in the equation until you get a !

What does this smiley face mean?



7.  Is this equation balanced? Explain. \_\_\_\_\_  
 \_\_\_\_\_

Using the simulation- add coefficients so that the equation is balanced correctly.



Using the simulation- add coefficients so the equation is balanced correctly.




List all reactants:

\_\_\_\_\_  
 \_\_\_\_\_

List all products:

\_\_\_\_\_  
 \_\_\_\_\_

9.  Discuss the maximum (highest number) of ammonia molecules the simulation will let you make? Draw them:



In the product, ammonia (2NH<sub>3</sub>), What does the (2) tell you about the equation?

\_\_\_\_\_  
 What does the (3) tell you? \_\_\_\_\_



Balancing Game

tab..

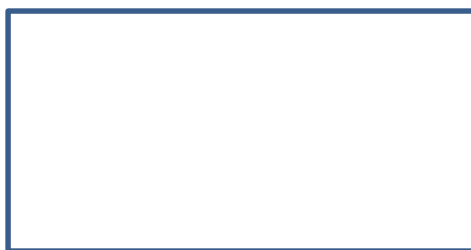
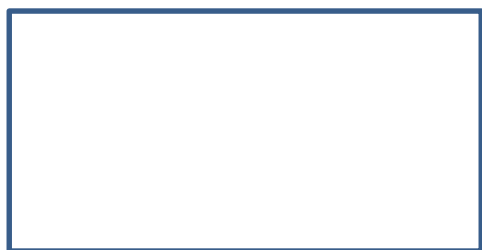
## Part II: Planning the game

- 1) Click on the home button located in the bottom of the screen
- 2) Click on the game on the right side.
- 3) Start with level 1
- 4) The game has three levels and each level has **five** questions for a total of 15 equations you MUST balance.
- 5) Fill out the questions below for each round of the game.

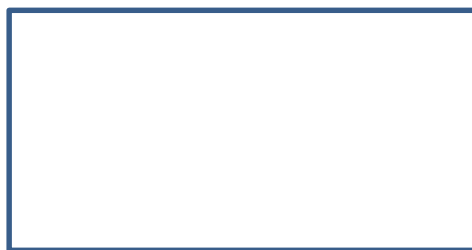
Level 1:

- Write the unbalanced chemical reaction on the line provided.
- Balance the chemical reaction on the computer. Click the check box to see if you are correct
- Once it is correct write the correct coefficients in the front of each reactant and product.
- Draw the number of each molecule in the box provided.


1. \_\_\_\_\_ → \_\_\_\_\_



2. \_\_\_\_\_ → \_\_\_\_\_



3. \_\_\_\_\_ → \_\_\_\_\_



4. \_\_\_\_\_ → \_\_\_\_\_



5. \_\_\_\_\_ → \_\_\_\_\_



**Level 2:**

1. \_\_\_\_\_ → \_\_\_\_\_



2. \_\_\_\_\_ → \_\_\_\_\_



3. \_\_\_\_\_ → \_\_\_\_\_



4. \_\_\_\_\_ → \_\_\_\_\_



5. \_\_\_\_\_ → \_\_\_\_\_



**Level 3:**

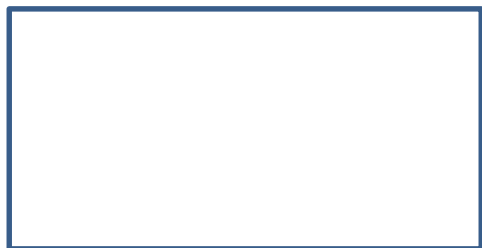
1. \_\_\_\_\_ → \_\_\_\_\_



2. \_\_\_\_\_ → \_\_\_\_\_



3. \_\_\_\_\_ → \_\_\_\_\_



4. \_\_\_\_\_ → \_\_\_\_\_



5. \_\_\_\_\_ → \_\_\_\_\_

