

- **LAPTOP # \_\_\_\_\_** Go to the following website: <http://tinyurl.com/kesxvvk>
- **Click on the “sandwich” icon and choose the “meat and cheese” button in the top right corner.**
  1. Write down the balanced equation for making a sandwich, seen at the top of the page.
- **Add four pieces of bread to the reactant side using the buttons towards the bottom of the screen.**
  2. How many pieces of meat and cheese do you need to use all four pieces of bread?
  3. What is the maximum number of sandwiches you can make from the four pieces of bread you put in?
- **Click the “molecules” icon at the bottom center of the screen.**
  4. Write down the balanced equation for making water, seen at the top of the screen.
  5. If you have six hydrogen molecules...
    - a. How many water molecules can you make?
    - b. How many oxygen molecules do you need?
  6. Show your stoichiometry line-method set ups for the two calculations you did for #5.
  7. What is the most number of water molecules you can make when you start with six hydrogen molecules?
  8. Show your stoichiometry line-method set up for the calculation for finding the maximum mass of water produced when you start with six hydrogen molecules.
- **Choose the “ammonia” button in the top right corner of the screen.**
  9. Write the balanced equation for making ammonia, seen at the top of the page.
  10. When you produce four ammonia molecules
    - a. How many hydrogen molecules are used?
    - b. How many nitrogen molecules are used?

11. Show your stoichiometry line-method set ups for the two calculations you did for #10.

12. If you have 8.08 g of hydrogen, how many grams of ammonia will you produce?  
Show your stoichiometry line-method set up for this calculation.

- **Click on the “combust methane” button in the top right corner**

13. Write the balanced equation for making methane, seen at the top of the page.

14. What is the most number of methane molecules you can use and not have any leftover molecules when finished?

15. If you react 6 oxygen atoms...

a. How many methane molecules do you use?

b. How many carbon dioxide molecules do you produce?

c. How many water molecules do you produce?

16. Show your stoichiometry line-method set up for the three calculations you did in #15.

17. Why are there always leftovers when you react an odd number of oxygen molecules? Check answer with teacher.

18. If you react 64.10 g of methane, how many grams of carbon dioxide do you produce?  
Show your stoichiometry line-method set up for this calculation.

- **Click on the “Game” button on the bottom center of the screen.**

19. Play Level 1, Level 2 and Level 3.

20. Show the teacher your final scores at the end for a stamp.  
You must get 8/10 correct for each level in order to get a stamp.

STAMP