Balancing Equations Online  

Go to the Matter & Atoms page of the Kid Zone at http://sciencespot.net/ to find the links on this page.

SITE #1: Chemical Equations

1. What three things does a balanced equation show you?
   1. The _________________ which enter into a reaction.
   2. The _________________ which are formed by the reaction.
   3. The amounts of each substance __________ and each ________________ produced.

2. What two things must we remember when balancing equations?
   1. Every chemical compound has a _______________ which cannot be ________________.
   2. A chemical _______________ must account for every __________ that is used, which is an application of the Law of ________________ of __________.

3. What does the → mean? ______________________________

4. What does the ↔ mean? ________________________________

5. Write a balanced chemical equation that illustrates each type of reaction.
   Synthesis - _____________________________________________________________________
   Decomposition - ____________________________________________________________________
   Single-Replacement - __________________________________________________________________
   Double-Replacement (Ionic) - ___________________________________________________________________________

SITE #2: Classic ChemBalancer - You will need to go back to the Matter & Atoms page of the Kid Zone!

(1) Click the button for “Directions” and read carefully. Click the “OK” button and return to the game screen.
(2) Click “Start Game” button to give it a try!
(3) Start by adding a “1” in each box and compare the number of atoms of each element you have on each side.
(4) Change coefficients to balance each equation and click the “Balanced” button to check it. Correct it if it’s wrong.
(5) Use the information in the pop-up windows to answer each question and then write the balanced equation before clicking the OK button.

#1

What does “ferrum” mean? ______________
What color is sulfur? ______________

#2

What is HCl? ________________ _______
Where is it found in your body? _______

More on back …
### #3
What are pyrotechnics?

### #4
What was the Hindenberg?  
What gas was used in it?  
What gas is used today?

### #5
What does the symbol “Hg” represent?  
Why should you never touch it?

### #6
What gas is produced when calcium metal is dropped in water?

### #7
What is CH₄? What gases is it related to?

### #8
What is H₂O₂?  
What is it used for?

### #9
What is ammonia used for today?  

### #10
How is the oxidation of aluminum different from that of iron?

### #11
What gas is released when potassium permanganate is decomposed?

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*Done? You may visit any of the sites listed on the Matter & Atoms page of the Kid Zone!*