

Balancing Equations Online

Name _____

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 \rightarrow mean? _____
4. What does the $\leftarrow \rightarrow$ 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 CH_4 ? _____ What gases is it
related to? _____ & _____

#8

What is H_2O_2 ? _____

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? _____

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