Key

BALANCNG AN EQUATION

Calcium and oxygen combine to form calcium oxide. A student's first attempt at balancing this equation is shown below. Look at the equation and answer the following questions:

Ca + O_2 -------> CaO

In this equation:

1. How many calcium atoms are on the left side? 1
2. How many calcium atoms are on the right side? 1
3. How many oxygen atoms are on the left side? 2
4. How many oxygen atoms are on the right side? 1
5. Is the equation balanced? NO

The student's second attempt at balancing this equation is written below. Answer the following questions:

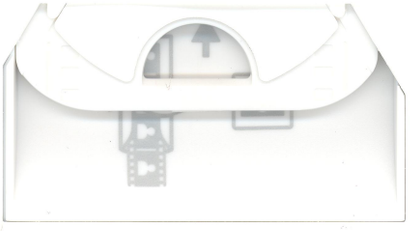
Ca + O_2 -------> 2CaO

In this equation:

6. How many calcium atoms are on the left side? 1
7. How many calcium atoms are on the right side? 2
8. How many oxygen atoms are on the left side? 2
9. How many oxygen atoms are on the right side? 2
10. Is the equation balanced? NO

What could be done to completely balance the equation?

2 Ca + 1 O_2 -------> 2CaO



BALANCED OR UNBALANCED?

Ten equations are listed below. Some are balanced, some are unbalanced. Make a check (✓) in the correct box next to each equation.

	Equation	Balanced	Unbalanced
1.	$Fe + S \longrightarrow FeS$	✓	
2.	$2Mg + O_2 \longrightarrow 2MgO$		✓
3.	$C + O_2 \longrightarrow CO_2$	✓	
4.	$P_4 + 5O_2 \longrightarrow P_4O_{10}$		✓
5.	$2H_2 + O_2 \longrightarrow 2H_2O$		✓
6.	$4Na + O_2 \longrightarrow 2Na_2O$		✓
7.	$CuO + H_2 \longrightarrow Cu + H_2O$	✓	
8.	$2Cu + S \longrightarrow Cu_2S$		✓
9.	$Zn + 2HCl \longrightarrow ZnCl_2 + H_2$	✓	
10.	$2Na + 2H_2O \longrightarrow 2NaOH + H_2$		✓

MATCHING

Match the correct term in column A with the description in column B. Write the correct answer in the space provided.

Column A

D 1. Coefficient

B 2. Subscript

E 3. Balanced equation

C 4. Unbalanced equation

A 5. *Law of Conservation of Matter*

Column B

a. States that matter cannot be created or destroyed

b. Small number after a symbol

c. Does not obey *Law of Conservation of Matter*

d. Number in front of a compound

e. Same number and kind of atoms on both sides of an equation