





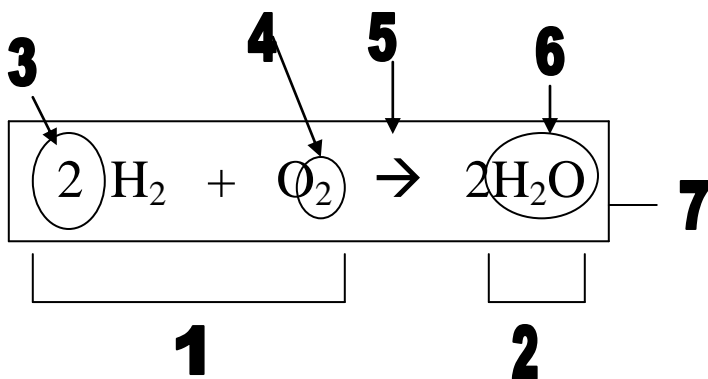
Name _____
 Science _____

Date _____
 Counting Atoms WS

Directions: List each element and the number of atoms of each element present in the compounds below. Use your periodic table for names of elements. The first example has been done for you.

Name	Use	Formula	Atoms in Formula
Calcium carbonate	Limestone 	CaCO ₃	Ca = calcium 1 C = carbon 1 O = oxygen 3
Aspirin	Pain reliever	C ₉ H ₈ O ₄	
Magnesium hydroxide	Found in milk of magnesia 	Mg(OH) ₂	
Paradichlorobenzene	Moth crystals	C ₅ H ₄ O ₂	
Acetic acid 	Found in vinegar	C ₂ H ₄ O ₂	
Trinitrotoluene (TNT)	Explosive 	C ₇ H ₅ (NO ₂) ₃	
Calcium dihydrogen phosphate	Fertilizer	Ca(H ₂ PO ₄) ₂	

Directions: Place the labels to the diagram below on the lines provided.



1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

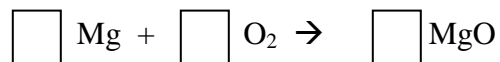
OVER →

Balancing Act



Atoms are not **CREATED** or **DESTROYED** during a chemical reaction; they are **REARRANGED**. There must be the **SAME NUMBER** of atoms on **EACH SIDE** of the equation. To balance an equation, you must **ADD COEFFICIENTS** in **FRONT** of the chemical formulas. **DO NOT** add or take away subscripts.

1) Determine number of atoms for each element.



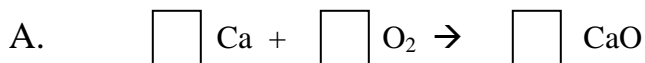
2) Pick an element that is not equal on both sides of the equation.

$$\text{Mg} = \qquad \qquad \text{Mg} =$$

3) Add a coefficient in front of the formula with that element and adjust your counts.

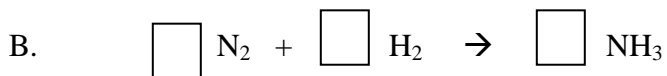
$$\text{O} = \qquad \qquad \text{O} =$$

4) Continue adding coefficients to get the same number of atoms of each atom on both sides.



$$\text{Ca} = \qquad \qquad \text{Ca} =$$

$$\text{O} = \qquad \qquad \text{O} =$$



$$\text{N} = \qquad \qquad \text{N} =$$

$$\text{H} = \qquad \qquad \text{H} =$$



$$\text{H} = \qquad \qquad \text{H} =$$

$$\text{O} = \qquad \qquad \text{O} =$$