## Balancina Act

Name\_\_\_\_\_

Atoms are not	or	du	ring a	chemical	reaction.
Scientists know that there must be the	I	number of atom	ns on ea	ich	of
the To balance the chem	ical equation.	, you must add			_ in front
of the chemical formulas in the equation.	You cannot	or		subscri	pts!
				7	

1) Determine number of atoms for each element.

 $Mg + O_2 \rightarrow$ | | MgO Mg =Mg =O =

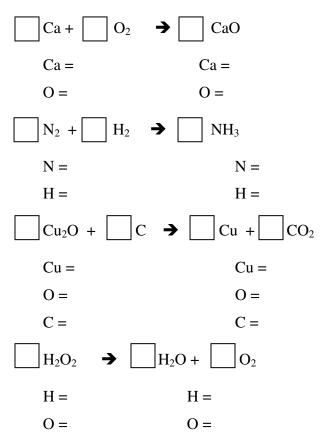
O =

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

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

4) Continue adding coefficients to get the same number of atoms of each element on each side.

## Try these:



## **Balancing Act Practice**

Balance each equation. Be sure to show your lists! Remember you cannot add subscripts or place coefficients in the middle of a chemical formula.

1.	Na + MgF <sub>2</sub> → NaF + Mg
2.	Mg + HCl $\rightarrow$ MgCl <sub>2</sub> + H <sub>2</sub>
3.	$Cl_2 + KI \rightarrow KCl + I_2$
4.	NaCl $\rightarrow$ Na + Cl <sub>2</sub>
5.	$Na + O_2 \rightarrow Na_2O$
6.	Na + HCl → H <sub>2</sub> + NaCl
7.	$K + Cl_2 \rightarrow KCl$

Challenge: This one is tough!

 $C_2H_6$  +  $O_2$   $\rightarrow$   $CO_2$  +  $H_2O$