

How to balance chemical equations

All chemical reactions obey the law of conservation of mass. A balanced chemical equation symbolically describes a chemical reaction. Here is an example of a chemical reaction:

Carbon (C) can be burned in limited **oxygen** (O_2) to make carbon monoxide (CO).

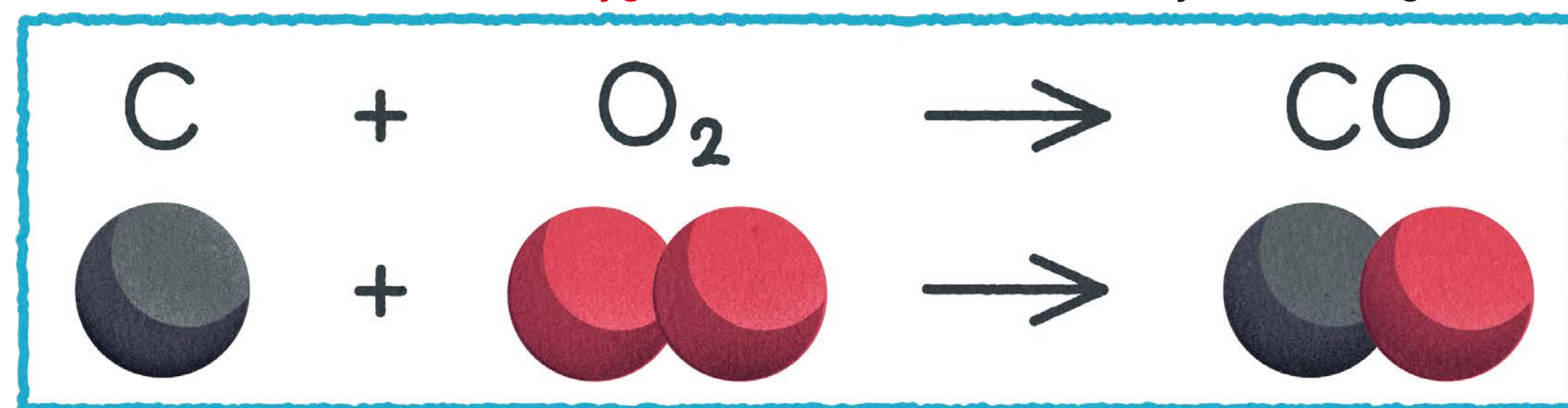
Here is the word equation:



Below is the symbol equation. It is unbalanced.

This is how to balance a symbol equation:

UNBALANCED. There are 2 **oxygen atoms** on the left and only 1 on the right.

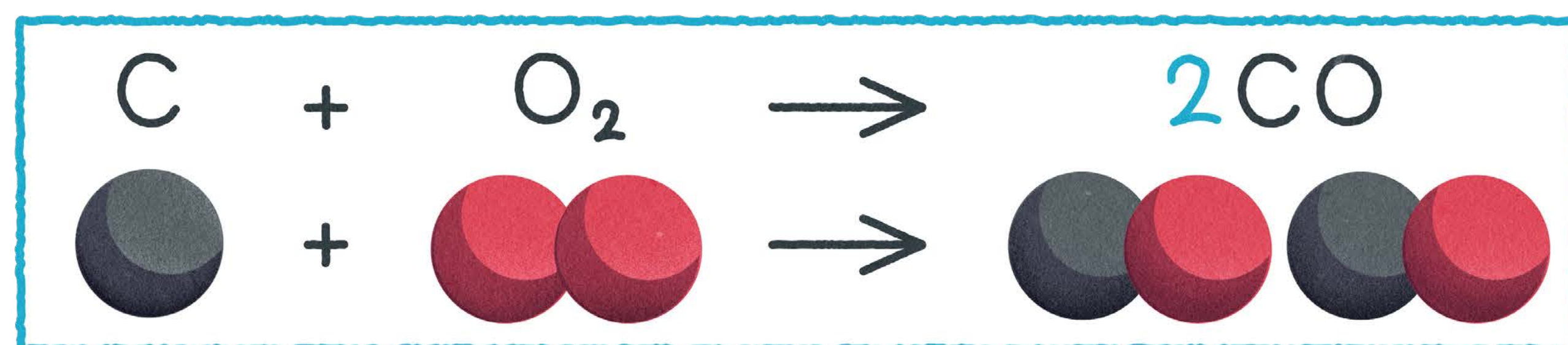


Rules for balancing

DO add multipliers before a species.

DON'T change the formulas.

Adding **2** on the right balances **O**. It also doubles the C in the formula.



BALANCED. Adding **2** on the left in front of the C in the formula balances the equation.

