Chemical Equations

Chemical reactions involve the rearrangement of atoms in the reactants to form new products. We represent these changes as chemical reactions.

Ethanol reacts with oxygen gas to produce carbon dioxide and water.

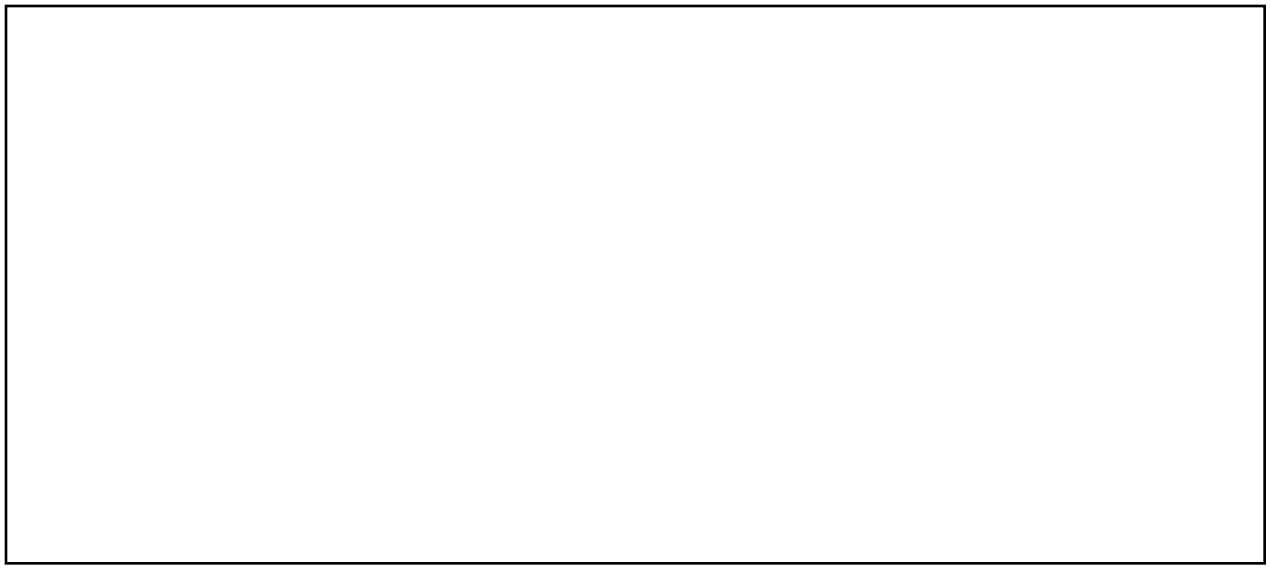
$$C_2H_5OH + O_2 \longrightarrow CO_2 + H_2O$$

The compounds on the left are they are reacting to form the products which are on the right.

It is important to remember that atoms can neither be created nor destroyed our reactions must reflect this. This is called balancing the equation.

The key is to identify elements that occur only in one place on each side. After that other elements can be considered.

$$C_2H_5OH + 3O_2 \longrightarrow 2CO_2 + 3H_2O$$



Future Thoughts-

Why might the comparison based on the number of molecules not be the best way to determine which molecule produces more carbon dioxide?