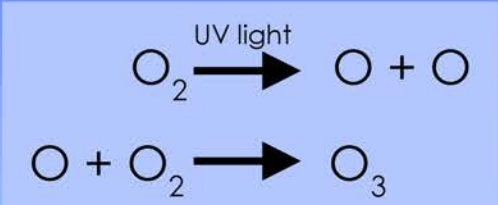


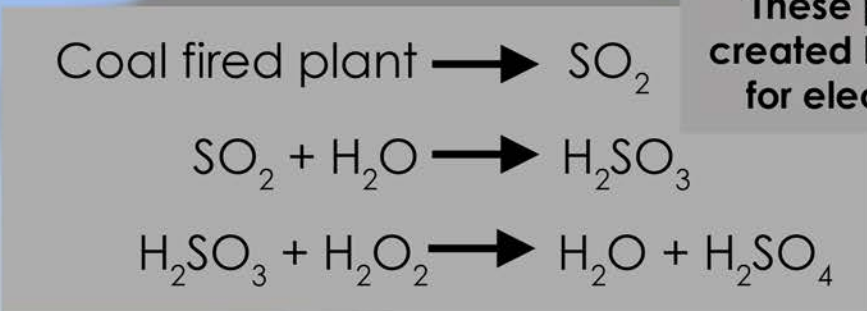
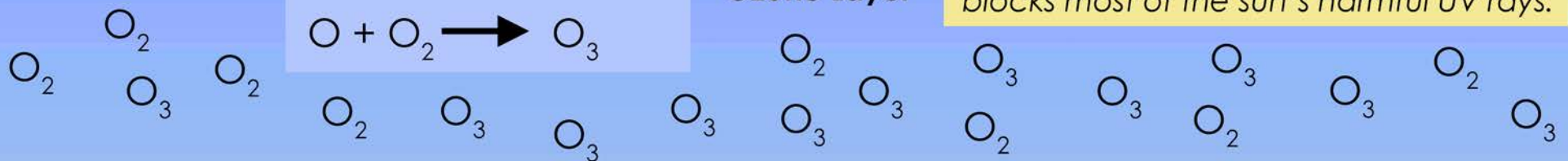
# Air Chemistry and Pollution Reactions

Model some of these reactions using LEGO® bricks.



Ozone Layer

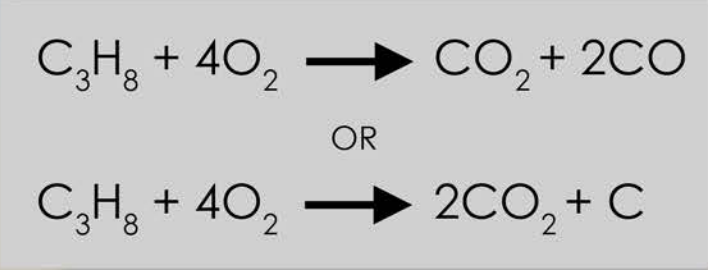
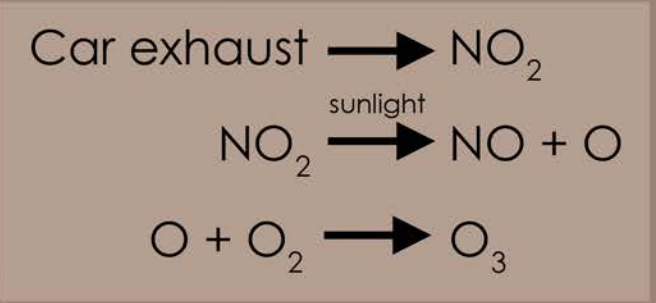
Ozone in the upper atmosphere creates a protective layer around the earth that blocks most of the sun's harmful UV rays.



These pollutants are created by burning coal for electrical energy.

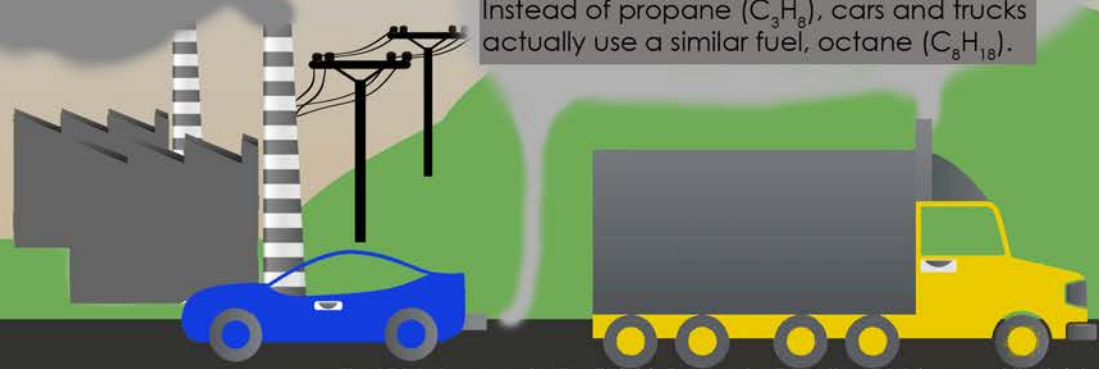
These pollutants come from incomplete combustion reactions in truck and car engines.

In sunlight, pollutants react with the air, creating these new pollutants. They form smog when mixed with soot.



Instead of propane ( $\text{C}_3\text{H}_8$ ), cars and trucks actually use a similar fuel, octane ( $\text{C}_8\text{H}_{18}$ ).

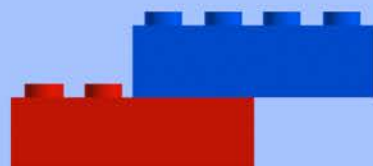
Ozone at ground levels is harmful to our health.



# Air Chemistry and Pollution Reactions

Side 2  
Advanced

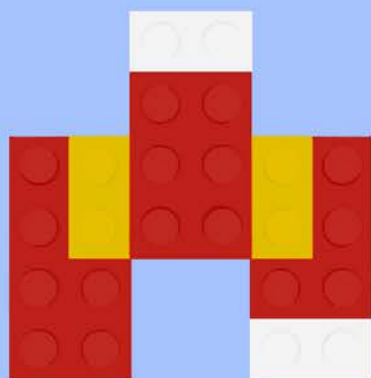
LEGO® molecules you may need for the reactions on Side 1.



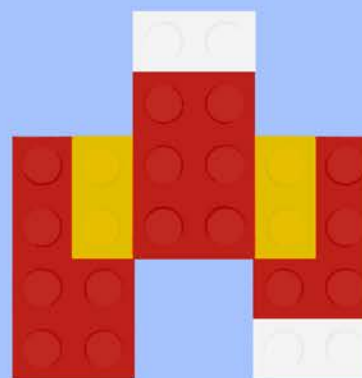
$\text{NO}$   
(nitric oxide)



$\text{H}_2\text{O}_2$   
(hydrogen peroxide)

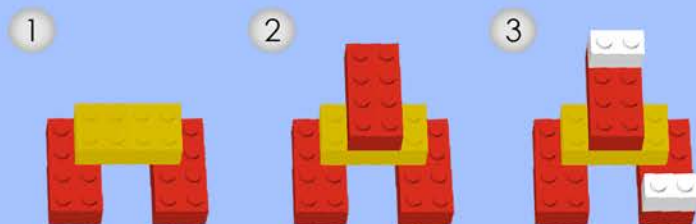


$\text{H}_2\text{SO}_3$   
(sulfurous acid)



$\text{H}_2\text{SO}_4$   
(sulfuric acid)

How to build  $\text{H}_2\text{SO}_3$  (sulfurous acid):



How to build  $\text{H}_2\text{SO}_4$  (sulfuric acid):

