# Combustion equations

***Education in Chemistry***May 2018[rsc.li/EiC318-airpollution](http://rsc.li/EiC318-airpollution)

**This activity accompanies the above article ‘Taking care of the air’.**

**Task A:** Balance the following equations associated with combustion and pollution.

1. \_\_\_\_C + \_\_\_\_O2 🡪 \_\_\_\_CO
2. \_\_\_\_CH4 + \_\_\_\_O2 🡪 \_\_\_\_CO2 + \_\_\_\_H2O
3. \_\_\_\_N2 + \_\_\_\_O2 🡪 \_\_\_NO
4. \_\_\_\_NO + \_\_\_\_O2 🡪 \_\_\_\_NO2
5. \_\_\_\_CH4 + \_\_\_\_O2 🡪 \_\_\_\_C + \_\_\_\_H2O

**Task B:** Write balanced symbol equations for the following descriptions.

1. The combustion of methane to give a poisonous gas and water.

1. The combustion of sulfur impurities to give an acidic gas.

1. The complete combustion of propane.

1. The incomplete combustion of propane to give a solid pollutant and water.

1. The incomplete combustion of solid carbon to give a poisonous gas.