# 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:** Add balancing numbers to the following equations associated with combustion and pollution.

1. \_\_\_\_C + O2 🡪 2CO
2. CH4 + \_\_\_\_O2 🡪 CO2 + \_\_\_\_H2O
3. N2 + O2 🡪 \_\_\_NO
4. \_\_\_\_NO + \_\_\_\_O2 🡪 2NO2
5. CH4 + O2 🡪 C + \_\_\_\_H2O

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

1. The combustion of methane (CH4) to give a **poisonous gas** and water.

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

1. The complete combustion of propane (C3H8).

1. The incomplete combustion of propane (C3H8) to give a **solid pollutant** and water.

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