# GROUP 2: REACTIONS WITH AIR AND OXYGEN

1. When Group 2 metals burn in oxygen, you may get either the simple oxide or a peroxide formed.

   a) Name the metals which only form a simple oxide.

   b) Name a metal which usually forms a simple oxide, but may form a peroxide if it is heated in oxygen at high pressures.

   c) Name a metal which usually forms a peroxide.

   d) Write the equation for a reaction between a metal and oxygen where a simple oxide is formed.

   e) Write the equation for a reaction which forms a peroxide.

   d) Explain why some metals can only form simple oxides whereas others can form peroxides.

2. When magnesium burns in air, magnesium nitride forms as well as magnesium oxide.

   a) Write the equation for the formation of magnesium nitride.

   b) Nitrogen is normally seen as being fairly unreactive. Explain why the Group 2 elements burn in nitrogen to make nitrides whereas members of Group 1 (except lithium) don't.