



1 Magnesium oxide is formed when magnesium reacts with oxygen.

a Write an equation for this reaction.

b Describe what you would see in this reaction.

.....

c Write an equation for the reaction of magnesium oxide with water. Give the approximate pH of the solution formed.

equation pH

d Explain why the reaction of sodium oxide reacts with water forms a solution that is more alkaline.

.....

.....

.....

e Write an equation for the reaction of magnesium oxide with nitric acid.

.....

2 Sulfur (IV) oxide is formed when sulfur reacts with oxygen.

a Write an equation for this reaction.

b Describe what you would see in this reaction.

.....

c Write an equation for the reaction of sulfur (IV) with water. Give the approximate pH of the solution formed.

equation pH

d Write an equation for the reaction of sulfur (IV) oxide with potassium hydroxide.

.....

3 In general terms, metal oxides are usually basic and non-metal oxides are usually acidic. Explain this difference in terms of structure and bonding.

.....

.....

.....

.....

.....

4 Write an equation for the reaction of sodium oxide with phosphorus oxide.

.....