



Acids & Bases

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CHEMICAL REACTION OF ACIDS AND BASES

-  REACTION WITH METALS
-  REACTION WITH METAL CARBONATE
-  REACTION WITH METAL HYDROGEN CARBONATE
-  REACTION WITH METALLIC OXIDES
-  REACTION WITH NON-METALLIC OXIDES
-  REACTION WITH EACH OTHER.

REACTION OF METALLIC OXIDES WITH ACIDS

METALLIC OXIDES REACT WITH ACIDS TO GIVE SALTS AND WATER.

METAL OXIDE + ACID $\rightarrow$ SALT + WATER



E.g. Sodium oxide reacts with hydrochloric acid to form Sodium chloride and water



E.g. Magnesium oxide reacts with sulphuric acid to form magnesium sulphate and water



REACTION OF METALLIC OXIDES WITH ACIDS

THE REACTION BETWEEN METAL OXIDE AND ACID IS SIMILAR TO REACTION BETWEEN BASE AND ACID. THAT'S WHY METALLIC OXIDE ARE SAID TO BE BASIC .



Complete the following equations

- **Metallic oxide + acid →**
- **Magnesium oxide + nitric acid →**
- **Zinc oxide + hydrochloric acid →**
- **Sodium oxide + sulphuric acid →**

REACTION OF NON-METALLIC OXIDES WITH BASES

NON-METALLIC OXIDES REACT WITH BASES TO GIVE SALTS AND WATER.

NON-METAL OXIDE + BASE $\rightarrow$ SALT + WATER





REACTION OF NON-METALLIC OXIDES WITH BASES

THE REACTION BETWEEN NON-METAL OXIDE AND BASE IS SIMILAR TO REACTION BETWEEN ACID AND BASE. THAT'S WHY NON-METALLIC OXIDE ARE SAID TO BE ACIDIC .

NON-METAL OXIDE + BASE $\rightarrow$ SALT + WATER

ACID + BASE $\rightarrow$ SALT + WATER

Complete the following equations

- Non-Metallic oxide + acid $\rightarrow$
- Sulphur dioxide + sodium hydroxide $\rightarrow$
- Nitrogen dioxide + sodium hydroxide $\rightarrow$
- Carbon dioxide + calcium hydroxide $\rightarrow$