**Acids and metals word equations**

Metals can react with acids to form a salt and hydrogen gas. This can be written as an equation:

**metal + acid → salt + hydrogen**

This is a general equation which can help you work out the products of reactions between different metals and acids.

You will meet three common acids:

* Hydrochloric acid which makes *chloride* salts,
* Sulphuric acid which makes *sulphate* salts
* Nitric acid which makes *nitrate* salts.

**Example**

sodium + sulfuric acid → sodium sulfate + hydrogen

**Fill in the missing products and reactants**

1. Calcium + hydrochloric acid → \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + hydrogen
2. Potassium + \_\_\_\_\_\_\_\_\_\_\_\_ acid → potassium nitrate + hydrogen
3. \_\_\_\_\_\_\_\_\_ + sulfuric acid → iron sulfate + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Zinc + \_\_\_\_\_\_\_\_\_\_\_\_\_ acid → \_\_\_\_\_\_ chloride + \_\_\_\_\_\_\_\_\_\_\_\_\_

**Write your own word equations for the following reactions**

1. Magnesium reacting with hydrochloric acid

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1. Iron reacting with nitric acid

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1. Sodium reacting with hydrochloric acid

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1. A reaction that produces zinc nitrate and hydrogen

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