

Name:

Class:



Give an example of a fossil fuel?

Oil, gas, coal etc.**Accept any correct answer.**

Give the formula of a molecule of ammonia?

NH₃

Many fossil fuels contain sulfur as an impurity which can cause acid rain.

- i. Explain how the presence of sulfur as an impurity can lead to the formation of acid rain?

The sulfur will burn when the coal is burned. This forms sulfur dioxide. This can react with water vapour in the air to form sulfuric acid. This can then fall to the ground as acid rain.

- ii. Explain how sulfur is said to be oxidised in the above reaction?

It has gained oxygen atoms.

What type of reaction would it be if we added an acid to an alkali?

Neutralisation

Give the symbols of the following.

Potassium	Sodium
K	Na

Identify the following piece of apparatus.

**Test tube rack**

Acids reacts with metals to give off a very light flammable gas.

- i. Complete the following equation.

sulfuric acid + iron → iron sulfate + **hydrogen**

- ii. What test would you carry out to determine the identity of the gas produced and what would be the positive result?

Test: lit splint.

Positive result: a squeaky pop is heard if hydrogen gas is present.

A student places four different metals (magnesium, copper, iron, zinc) into separate test tubes containing dilute hydrochloric acid.

Which metal would produce bubbles the fastest?

Magnesium.

Which metal would not react at all?

Copper.