




Fossil fuels

Review


 The **early** atmosphere contained **large** amounts of **carbon dioxide** but very **little oxygen**. This compared to **today's** atmosphere which contains **large** amounts of **oxygen** but only **small** amounts of **carbon dioxide**.


 Photosynthesis takes in carbon dioxide and produces oxygen. Some of the carbon has ended up in fossil fuels (coal, oil or gas).

Formation of fossil fuels


 Fossil fuels include coal, oil and natural gas. Fossil fuels take millions of years to form. They are **non-renewable** which means if we keep using them they will eventually run out.


Formation of coal

 Coal is formed from the fossilised remains of **ferns and trees**. If these died millions of years ago in marshy wetlands then they would not decompose. They did not decompose due to a lack of oxygen or the acidic conditions of the marshy wetlands. Both these conditions prevent bacteria from decomposing the wood or ferns.


 Over time the plant remains are covered with sediment and compressed. High temperature and pressure turns the wood and ferns into coal.


Formation of oil

 Oil is formed from **plankton** which are microscopic plant and animals found in the sea. When they die, the plankton settle in mud on the sea bed. Once again if oxygen is not present they do not decompose.

 Over time they can be compressed by layers of sediment forming on top of them. Heat and pressure then convert them into crude oil.

Formation of natural gas

 Natural gas consists mainly of the hydrocarbon methane. Natural gas deposits are usually found with deposits of crude oil. This is because natural gas is also formed from **plankton**.

 All fossil fuels contain trapped carbon. The trapped carbon was part of the carbon dioxide taken in by photosynthesis millions of years ago.