

Card A - what are fossil fuels?

Fossil fuels are coal, oil and natural gas. They were formed over millions of years from the organic remains of prehistoric organisms. Because they take millions of years to form, fossil fuels are known as non-renewable energy resources. This means that there is only a limited supply which can be mined or drilled before it runs out.

Gas and oil are the remains of small sea creatures and plants which died and fell to the bottom of the sea. Layers of mud or other sediments built up on top of these dead animals and plants over many millions of years which compressed the dead animals and plants into what we recognise as oil and natural gas. Natural gas and crude oil can be found in many places around the world, such as the Middle East (about 70 per cent of the world's known resources of oil), the USA and under the North Sea off the coast of the UK.

Coal was also formed millions of years ago when trees and other plants grew rapidly in tropical climates. This was the case in the UK 250 million years ago. When these trees and plants died they fell into swamps. The water in the swamps prevented the plant material from decaying completely and peat bogs were formed. Over time, the peat built up layer by layer. As with the formation of gas and natural oil, it was pressure from layers being added over millions of years which changed the material from trees and plants into coal. Coal can be found in parts of the world that were once covered with swampy forests.

In the UK, it is estimated that about three-quarters of the electricity generated comes from power stations fuelled by fossil fuels. However, not only are they a non-renewable energy source, when burnt they also produce gasses in the form of carbon dioxide which are adding to climate change.

