

Coal is one of the most useful fossil fuels. It has many applications such as producing heat for households, firing industrial generators, manufacturing cast iron, etc. It can also be produced in the industry to obtain products like coke, tar and coal gas. These by-products are beneficial to us too. **Coke:** Coke is a high-carbon product obtained by the destructive distillation of coal. The amount of carbon content in coke is so high that it is said to be an almost-pure form of carbon. Coke is grayish-black in colour and is a hard, porous solid. Uses:

The most common use of coke is as a fuel for stoves, furnaces and blacksmithing. It is sometimes preferred over coal because burning coke produces very little smoke.

It is also used to produce iron in a blast furnace.

Coke is used to manufacture steel and many other materials.

**Coal tar:** It is obtained as a byproduct in the process of making coke. Though its colour is the same as coke, tar is a highly viscous liquid. It also has an extremely unpleasant smell. Uses:

Coal tar is widely used to manufacture paints, perfumes, synthetic dyes, photographic material, drugs and explosives.

It can be utilized to make insecticides and pesticides. Naphthalene balls that are commonly used to keep moths away are made from tar.

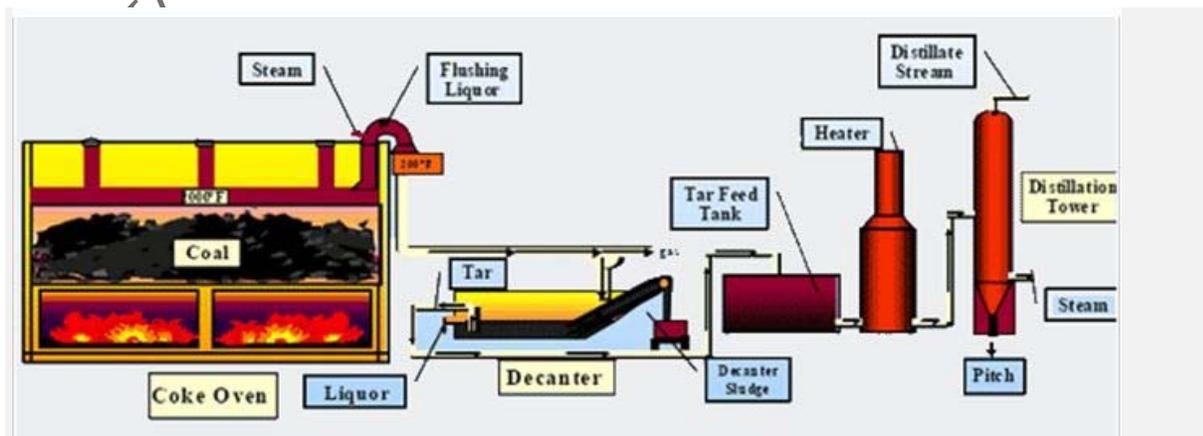
Coal tar is an ingredient of anti-dandruff and lice-repelling shampoos, soaps and ointments.

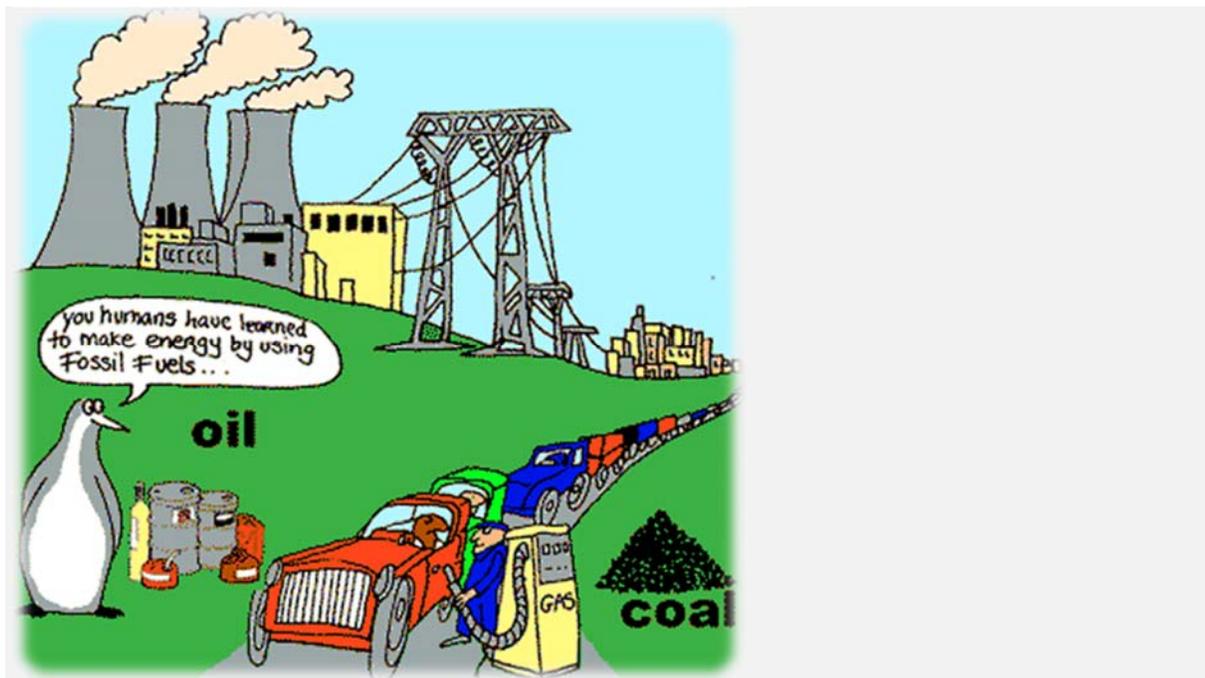
**Coal gas:** This is also obtained as a byproduct while producing coke, and again, just like tar, its smell is not very pleasant. It is a highly flammable gas as the main component of it is methane. Thus, if not regulated carefully, it can form mixture with air resulting in explosions. Uses:

It is mainly used as a fuel in industries situated near coal processing plants.

Earlier, it was used as a source of light. In the year 1820, it was used in London for the first time as street lighting.

Now, it is more commonly used to provide heat for domestic and industrial purposes.





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