

COAL AND PETROLEUM

- Coal, petroleum and natural gas are fossil fuels.
- Fossil fuels were formed from the dead remains of living organisms millions of years ago.

Inexhaustible Natural Resources: These resources are present in unlimited quantity in nature and are not likely to be exhausted by human activities. Examples are: sunlight, air.

Exhaustible Natural Resources: The amount of these resources in nature is limited. They can be exhausted by human activities. Examples of these resources are forests, wildlife, minerals, coal, petroleum, natural gas etc.

COAL

- It is as hard as stone and is black in colour
- Coal is processed in industry get some useful products such as coke, coal tar and coal gas
- Coke is a tough, porous and black substance. It is an almost pure form of carbon. Coke is used in the manufacture of steel and in the extraction of many metals.
- Coal Tar is a black, thick liquid with an unpleasant smell. Products obtained from coal tar are used as starting materials for manufacturing various substances used in everyday life and in industry, like synthetic dyes, drugs, explosives, perfumes, plastics, paints, photographic materials, Roofing materials.
- Coal gas is obtained during the processing of coal to get coke
- Different types of coals are peat, lignite, bituminous, and anthracite
- Anthracite is one of variety of coal contains the highest percentage of carbon
- Lignite coal is called brown coal, is the lowest grade coal with the least concentration of carbon

Petroleum and Natural Gas

- Petrol and diesel are obtained from a natural resource called petroleum. Petroleum is a mixture of Hydrocarbon

- Petroleum is a dark oily liquid. It has an unpleasant odour. It is a mixture of various constituents such as petroleum gas, petrol, diesel, lubricating oil, paraffin wax, etc.
- The process of separating the various constituents/ fractions of petroleum is known as refining
- Petroleum was formed from organisms living in the sea. As these organisms died, their bodies settled at the bottom of the sea and got covered with layers of sand and clay. Over millions of years, absence of air, high temperature and high pressure transformed the dead organisms into petroleum and natural gas.
- Natural gas is a very important fossil fuel because it is easy to transport through pipes.
- Natural gas is stored under high pressure as compressed natural gas (CNG). CNG is used for power generation. It is a cleaner fuel.
- Many useful substances are obtained from petroleum and natural gas. These are termed as ‘Petrochemicals’. These are used in the manufacture of detergents, fibres (polyester, nylon, acrylic etc.), polythene and other man-made plastics. Hydrogen gas obtained from natural gas, is used in the production of fertilisers (urea). Due to its great commercial importance, petroleum is also called ‘black gold’.

The world’s first oil well was drilled in Pennsylvania, USA, in 1859. Eight years later, in 1867, oil was struck at Makum in Assam. In India, oil is found in Assam, Gujarat, Mumbai High and in the river basins of Godavari and Krishna.

Constituents of Petroleum and their Uses below

Constituents of Petroleum	Uses
LPG	Fuel for home and industry
Petrol	Motor fuel, aviation fuel
Lubricating oil	Lubrication

Paraffin wax	Ointments, candles, Vaseline
Bitumen	Paints, road surfacing
Kerosene	Fuel for stoves, lamps and jet aircrafts