



**CHAPTER 5.**  
**COAL AND PETROLEUM**

**NOTES**

**Natural resources**

Natural resources are Earth material used to support life and meet the needs of people. This includes water, air, sunlight, soil, rocks, forests, animals, minerals, etc.

**Types of natural resources**

Natural resources can be broadly classified into two types:

- (i) Inexhaustible natural resources
- (ii) Exhaustible natural resources

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

Exhaustible natural resources are present in limited quantity and they can be exhausted by human activities. Examples: forests, wildlife, minerals, coal, petroleum, etc.

**Fossil fuels**

Natural resources like coal, petroleum and natural gas were formed from dead remains of living organisms (fossils). So, these are also known as fossil fuels.

**Coal**

- It is hard and black in colour.
- It one of the fuels used to cook food. It was used in railways engines and also in thermal power plants to produce electricity.
- Coal is formed from dead vegetation under high pressure and high temperature over millions of years.
- The slow process of conversion of dead vegetation into coal is called **carbonization**.
- When heated in air, coal burns and produces mainly carbon dioxide gas.
- Coal is processed in industry to get **coke**, **coal tar** and **coal gas**.

**Coke**

- It is a tough, porous and black substance.
- It is an almost pure form of carbon.
- It is used in the manufacture of steel and extraction of many metals.

## Coal tar

- It is black, thick liquid with an unpleasant smell.
- It is a mixture of about 200 substances.
- It is used in manufacture of synthetic dyes, drugs, explosives, perfumes, plastics, paints, photographic materials, roofing materials, naphthalene balls, etc.

## Coal gas

- It is used as a fuel in many industries situated near the coal processing plants.
- Earlier, it was used for street lightening. Now a days, it is used as the source of heat rather than light.

## Petroleum

- It is a dark oily liquid with unpleasant odour.
- It is a mixture of various constituents such as petroleum gas, petrol, diesel, lubricating oil, paraffin wax, bitumen, etc.
- It was formed from the remains of plants and animals living in the sea millions of year ago.
- The process of separating the various constituents or fractions of petroleum is known as **refining**. It is done in petroleum refinery.
- In India, it is found in Assam, Gujarat, Mumbai high and in the river basins of Godavari and Krishna.
- Many useful substances are obtained from petroleum and natural gas. These substances are called **petrochemicals**. They are used in the manufacture of detergents, polythene, man-made plastics, polyester fibre, nylon fibre, acrylic fibre, etc.
- Petroleum is called “**Black Gold**” because of its great commercial importance.

## Natural gas

- Natural gas can be transported through pipes and is stored under high pressure as Compressed Natural Gas (CNG).
- CNG and LPG (Liquefied Petroleum Gas) can be directly used for burning and hence finds extensive use at home in cooking cylinders and industries for generating energy.
- In our country, natural gas has been found in Tripura, Rajasthan, Maharashtra and in the Krishna Godavari delta.

Coal and petroleum resources are limited. We should use it judiciously.

---