



**CLASS: VIII DIVISION: \_\_\_\_\_**

**SUBJECT: Science**

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**LESSON: 3 – Coal and Petroleum**

**I. KEY WORDS:**

1. Coal
2. Coal tar
3. Coke
4. Fossil fuel
5. Natural gas
6. Petroleum
7. Petroleum refinery
8. Carbonisation
9. Lubrication
10. Petrochemicals
11. Bitumen

**PREACTIVITY:**

Draw the table of various constituents of petroleum and their uses.

**Q1. Where is coal mainly found in India?**

Ans: In India, coal is mainly found in Bihar, Jharkhand, west Bengal, Odisha and Madhya Pradesh.

**Q2. Name any two constituents of petroleum.**

Ans: Petrol and kerosene.

**Q3. Name the petroleum product used for surfacing of roads**

Ans: Bitumen

**Q4. Explain why fossil fuels are exhaustible natural resources.**

Ans: Fossil fuels are exhaustible natural resources because.

- They are formed from organic matter buried deep within the earth over millions of years. This slow process means that they cannot be replenished soon.
- The amount of fossil fuels available in earth's crust is limited.

**Q5. Describe characteristics and uses of coke.**

Ans: Coke is a tough porous and black substance. It is produced by destructive distillation of coal.

- It is an almost pure form of carbon.
- It is used as domestic as well as an industrial fuel in stoves and furnaces.
- It is used in the manufacture of steel.
- It gives little or no smoke.
- It is used for extraction of metals.
- It can be used to make fuel gases.

**Q6. Explain the process of formation of petroleum.**

Ans: 1. Petroleum is formed from organisms living in the sea.

2. As these organisms died, their bodies settled down at the bottom of the sea and got covered with sand and clay.
3. The absence of air, high pressure and high temperature for over millions of years transformed the dead organisms into petroleum and natural gas.
4. The petroleum deposits are usually found mixed with salt water.
5. The petroleum is lighter than salt water, and hence, floats over it.

**Q7. What are the advantages of using CNG and LPG as fuels?**

Ans: The advantages of using CNG and LPG as fuels are:

CNG and LPG produces lower emission hence contributing to improved air quality and reduced environmental pollution.

1. LPG and CNG both are easy to store and transport.
2. CNG & LPG are used for power generation.
3. LPG can be used directly as fuel for burning in homes and factories.
4. These are easily available and have affordable cost.
5. LPG and CNG has virtually no ash particles left after burning.

**Q8. Describe how coal is formed from dead vegetation. What is this process called?**

Ans: 1. About 300 million years ago the earth had dense forests in low lying wetland areas.

2. Due to natural processes, like flooding, these forests got buried under the soil. As more soil deposited over them, they were compressed.
3. The temperature also rose as they sank deeper and deeper.
4. Under high pressure and high temperature, dead plants got slowly converted to coal.
5. As coal contains mainly carbon, the slow process of conversion of dead vegetation into coal is called **carbonisation**.

**POST ACTIVITY:**

Locate the petroleum reserves and natural gas resources on the map of India.

**Subject Tr**

**HOD**

**Co Ordinator**

**Principal**