

## LESSON 5 - COAL AND PETROLEUM

Subject: Science

Class: VIII

MODULE -2/3

### Handout

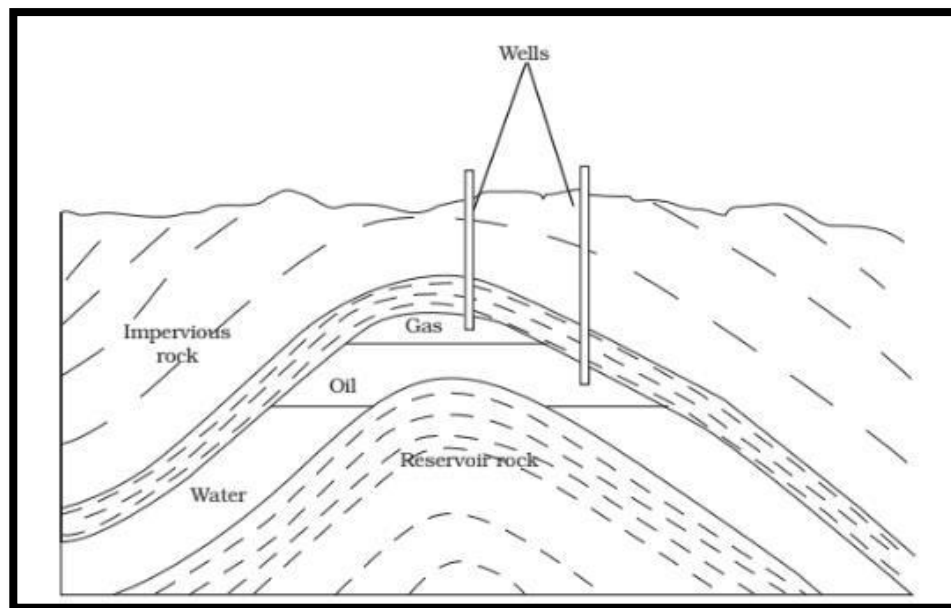
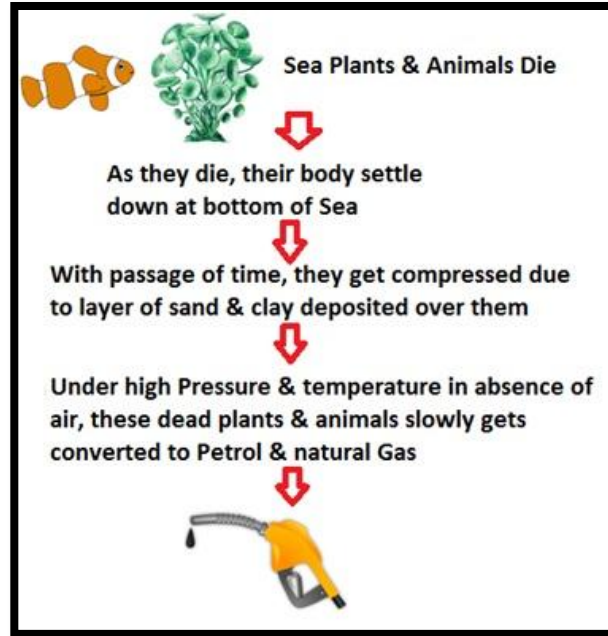
#### Petroleum

It is a dark brownish to green coloured viscous liquid fossil fuel. It has strong foul smell due to the presence of sulphur-containing compounds in it. It is commonly known as crude oil.

The economy of a nation depends to a great extent on petroleum wealth—that is why petroleum is called **black gold**.

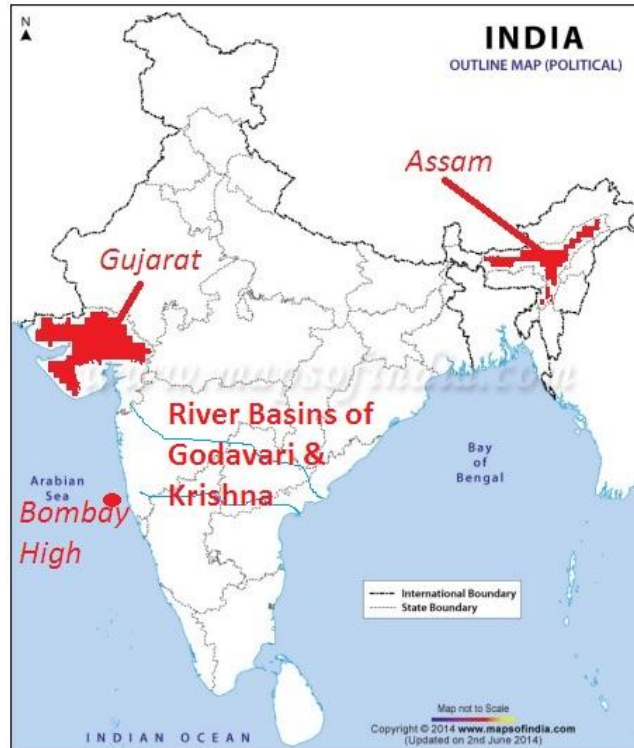
#### How are Petroleum and Natural Gas formed?

- When the sea organisms die, their bodies sink to the bottom of the sea. With time, they get covered by the layers of sand and clay.
- Over millions of years, these remains get transformed into petroleum and natural gas due to high temperature, high pressure, and absence of air.
- When we dig oil wells, natural gas is above crude oil, which in turn is above water. This happens because gas and oil are lighter than water and do not mix with it.



**The first oil well in the world was drilled in Pennsylvania, USA in 1859. The second oil well in the world was drilled in Makum, Assam, India in 1867. (i.e., Eight years after the first oil well was drilled at Pennsylvania)**

**In India, oil is found in Assam, Gujarat, Mumbai High and river basins of Godavari and Krishna.**



## Refining of Petroleum

Originally, petroleum is a mixture of many things, such as petrol, diesel, petroleum gas, paraffin wax, lubricating oil etc. It is a dark and oily liquid with an unpleasant odour.

Refining of petroleum is the process by which different constituents of petroleum are separated. This process takes place in a **petroleum refinery**.

**Table 5.1 Various constituents of petroleum and their uses**

<b>S.No.</b>	<b>Constituents of petroleum</b>	<b>Uses</b>
1.	Petroleum Gas in Liquid form (LPG)	Fuel for home and industry
2.	Petrol	Motor fuel, aviation fuel, solvent for dry cleaning
3.	Kerosene	Fuel for stoves, lamps and for jet aircrafts
4.	Diesel	Fuel for heavy motor vehicles, electric generators
5.	Lubricating oil	Lubrication
6.	Paraffin wax	Ointments, candles, vaseline etc.
7.	Bitumen	Paints, road surfacing

### **Why Petroleum is called 'black gold'?**

Petroleum is called 'black gold' because it yields several substances that are commercially useful. The useful substances obtained from petroleum and natural gas are called 'petrochemicals'.

### **Petrochemicals are used in manufacturing the following items:**

Synthetic fibres (such as Polyester, Nylon, Acrylic etc)

Detergents

Polythene and man-made plastics etc

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