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STUDY NOTES — Teacher's Name: Anjani Kaushik

CLASS- IX (All Section) — DATE: 03-06-2020

BIOLOGY

LESSON-05

CHAPTER: Natural resources

Today's Topic: Natural resources

Oxygen cycle:

The cyclic process by which oxygen element is circulated continuously through the living and non-living components of the biosphere constitutes oxygen cycle

Oxygen cycle involves the following processes:

(a) Respiration: All living organisms take in simple sugars (glucose) and oxygen and release carbon dioxide, water and energy.

(b) Combustion: During the processes of combustion (or burning), oxygen reacts with carbon to form carbon dioxide gas.

(c) Photosynthesis: Carbon dioxide gas from atmosphere is absorbed by green plants in the presence of sunlight to form carbohydrates and oxygen. Thus, oxygen is liberated in atmosphere.

Green House Effect:

Greenhouse gases such as carbon dioxide, methane, nitrogen oxide and Chlorofuorocarbans present in atmosphere prevent the escape of heat falling on Earth's surface rather than absorbing it. This keeps the Earth warm and the phenomenon is known greenhouse effect.

Ozone layer:

Three molecules of oxygen combine to form ozone which forms a layer in stratosphere.

It acts as a protective shield as it prevents harmful ultraviolet radiations to reach the earth.

Compounds like CFCs (Chloro fluorocarbons) reacts with ozone releasing molecular oxygen resulting in breakdown of ozone, which is termed as ozone depletion.

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HOMEWORK (Based on Previous Study Notes)

Now answer the following questions:-

Q1. Water is known as 'A Wonder Liquid'. Explain.

Q2. Why is the nitrogen cycle supposed to be an ideal cycle in the biosphere?

Q3. State various steps and processes involved in the nitrogen cycle in nature.

Q4. What are CFCs and how are they harmful?

Q5. Mention three ways by which atmosphere regulates the average temperature on earth?

Q6. List three human activities responsible for the pollution of water bodies?

Q7. Name the various organisms involved in nitrogen cycle.

Q8. What does the presence of smog in an area indicate?

Q9. Explain the following terms:

(i) Nitrogen fixation, **(ii)** Nitrification, **(iii)** Denitrification.

Q10. List any three human activities which would lead to an increase in the carbon dioxide content of air.