

DCP FOR CHAPTER-15: OUR ENVIRONMENT.

Number of period	Sub-Topics
1	Environment, Ecosystem, classification of ecosystem- Natural ecosystem, Artificial ecosystem Components of ecosystem, Function of an ecosystem
2	Food chain, Food web Trophic level, 10% law of energy transfer.
3	Pyramid of biomass, pyramid of number, Bio magnification
4	Human activities and environment, ozone layer formation, depletion causes and prevention managing garbage we produce.

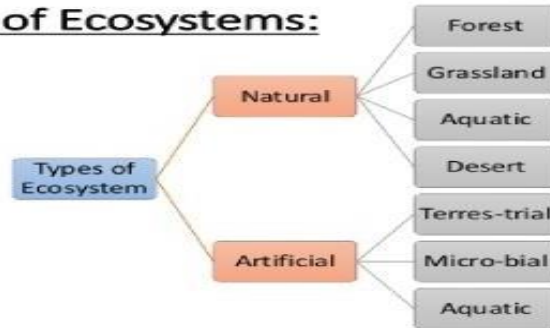
Class	X	Subject	BIOLOGY
Period.	1	Chapter-15	Our Environment
Sub-Concepts	Environment, Ecosystem, classification of ecosystem-Natural ecosystem, Artificial ecosystem Components of ecosystem, Function of an ecosystem		
Teaching Aid To be used	Smart Class, PowerPoint presentation, classroom objects, charts.		
Learning Outcome.	On completion of this topic, students will be able to <ul style="list-style-type: none"> • Define eco system • List the different component of eco system and categorize them in to Biotic and abiotic components • Categorize the substances in ecosystem as biodegradable and non-bio degradable • Identify the producers, consumers and decomposers. They will be able to analyze their role in anecosystem • List the categories of consumers as herbivores, carnivores and omnivores 		
Sl. No	Step Wise (What to be done)		

1 Introduction.	<ul style="list-style-type: none">➤ Define environment➤ Bio-geochemical cycles➤ Biodegradable materials➤ Non- biodegradable materials➤ Living components➤ Non-living components
2. Ecosystem	<ul style="list-style-type: none">➤ Define Ecosystem

- Explain biosphere
- Ecology

3. Classification of ecosystem.

Classification of Ecosystems:



4. Components and function of an ecosystem.

- Biotic components
- Producers
- Consumers
- Decomposers
- Abiotic component (air, water, soil)

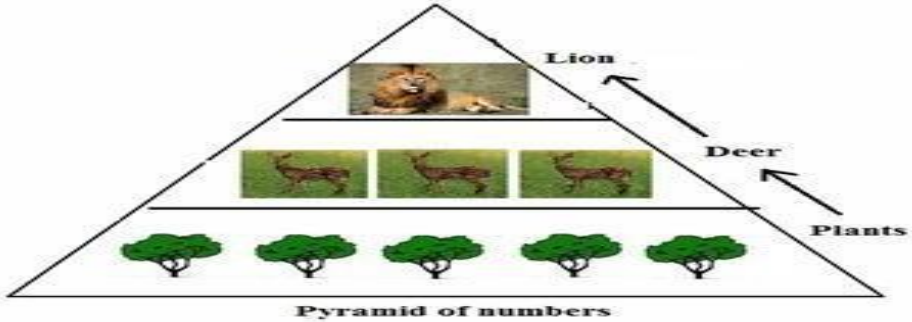
5.Home Assignment

Q. 3,4 and 5 of question bank.

Class	X	Subject	BIOLOGY
Period.	2	Chapter-15	Our Environment
Sub-Concepts	Food chain, Food web, Trophic level, 10% law of energy transfer.		
Teaching Aid To be used	Smart Class, PowerPoint presentation, classroom objects, charts.		
Recapitulation.	Testing previous knowledge – <ol style="list-style-type: none"> 1. Give two examples of Artificial ecosystems. 2. Which is the ultimate source of the energy for an ecosystem? 3. Do we have to clean ponds or lakes in the same manner of aquarium? Why or why not? 		
Learning Outcome	On completion of this topic, students will be able to <ul style="list-style-type: none"> • Investigate how different organisms in an ecosystem obtain energy • Understand the role of producers, consumers and decomposers in a foodchain or in a food web. • Distinguish between food chain and food web. • Analyze how do different organisms including human beings affect food chains. • Demonstrate how the energy flows through a food chain in an ecosystem and how much energy is transferred to the successive trophic level . 		
Sl. No	Step Wise (What to be done)		
1.Food chain	<ul style="list-style-type: none"> ➤ Different steps of food chain. (two steps, three steps, four steps and five steps food chain) ➤ Who Eats whom? ➤ Forest food chain, grassland food chain, pond food chain. 		
2.Food web	<ul style="list-style-type: none"> ➤ Importance of food web. 		

<p>3. Trophic level</p>	
<p>4. 10% law of energy transfer</p>	
<p>5. Home Assignment</p>	<p>Q. 1, 2 and 5 of Question bank.</p>

Class	X	Subject	BIOLOGY
Period.	3	Chapter-15	Our Environment
Sub-Concepts	Pyramid of biomass, pyramid of number, Bio magnification		
Teaching Aid To be used	Smart Class, PowerPoint presentation, classroom objects, charts.		
Recapitulation	Testing previous knowledge – <ol style="list-style-type: none"> 1. What are the importance of decomposers? 2. What is a food chain? 3. What is food web? 4. Distinguish between a food chain & a food web 		
Learning Outcome	On completion of this topic, students will be able to <ul style="list-style-type: none"> • Define biomass • Draw or construct the pyramids of biomass and number and correlate them. • Outline and analyses the process of Biomagnification • Analyze the effect of Biomagnification in a food chain. 		
Sl. No	Step Wise (What to be done)		
1. Ecological pyramid	<ul style="list-style-type: none"> ➤ Explain pyramids ➤ Types of pyramids ➤ Types of pyramids 		
2. pyramid biomass	<ul style="list-style-type: none"> ➤ Define biomass ➤ What is organic matter ➤ Maximum biomass occurs in producers 		

<p>3.pyramid number and energy.</p>	 <p>The diagram is a pyramid divided into three horizontal levels. The bottom level is labeled 'Plants' and contains five green tree icons. The middle level is labeled 'Deer' and contains three brown deer icons. The top level is labeled 'Lion' and contains one lion icon. Arrows on the right side of the pyramid point upwards from the plants to the deer, and from the deer to the lion. Below the pyramid is the text 'Pyramid of numbers'.</p>
<p>4. Biomagnification</p>	<ul style="list-style-type: none"> ➤ Define biological magnification ➤ Toxic chemicals ➤ DDT ➤ PPM
<p>5.Home Assignment.</p>	<p>Q. 6 and 7 of Question bank.</p>

Class	X	Subject	BIOLOGY.
Period.	4	Chapter-15	Our Environment
Sub-Concepts	Human activities and environment, ozone layer formation, depletion, causes and prevention managing garbage we produce.		
Teaching To be used	Smart Class, PowerPoint presentation, classroom objects, charts.		
Recapitulation.	Testing previous knowledge – 1. What is biological magnification.? Explain with examples. 2. Can an ecosystem survive without producers? 3. What is pyramid of numbers, biomass and energy?		
Learning Outcome.	On completion of this topic, students will be able to <ul style="list-style-type: none"> • Identify and explain major human activities which are threat to our environment • Define ozone and explain the function of ozone • List the threats to earth's ozone layer and measures to prevent its depletion • Categories the waste materials which we produce and discuss the simple steps individuals can take to protect our environment. • Be aware of Conservation of ecosystem. 		

Sl. No	Step Wise (What to be done)
1.Human activities and environment.	<ul style="list-style-type: none"> ➤ Define Pollution ➤ Explain Types of pollution ➤ Air pollution, water pollution, ➤ Different sources of pollution ➤ Effects of pollution. ➤ Measures to control pollution
2.ozone formation	<ul style="list-style-type: none"> ➤ Define ozone ➤ Explain ozone formation ➤ $\text{O}_2 \xrightarrow{\text{UV rad}} \text{O} + \text{O}$ $\text{O}_2 + \text{O} \longrightarrow \text{O}_3$
3.	<ul style="list-style-type: none"> ➤ Causes of ozone layer depletion ➤ ODS ➤ Effects of ozone layer depletion ➤ Measures to control ozone layer depletion
4. Causes and prevention managing garbage we produce.	<ul style="list-style-type: none"> ➤ Define Garbage ➤ Managing the garbage, we produce ➤ Waste treatment ➤ Disposal of hazardous materials.
5.Home Assignme nt	Q. 3,4 and 5of question bank.