



# **BIOLOGY**

## **BOOKS - OSWAAL BIOLOGY**

### **(KANNADA ENGLISH)**

#### **OUR ENVIRONMENT**

##### **Topic 1 Ecosystem And Food Chain Multiple Choice Questions**

**1. A balanced aquarium is best described as:**

A. a biome

B. an eco-system

C. a community

D. a biosphere

**Answer: B**



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**2. Primary consumers lose energy in metabolic activities and heat to environment about :**

A. 60 %

B. 70 %

C. 80 %

D. 90 %

**Answer: D**



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**Topic 1 Ecosystem And Food Chain Match The Column**

## 1. Match the Column

- |                        |                 |
|------------------------|-----------------|
| (1) Man-made ecosystem | (a) Temperature |
| (2) Natural ecosystem  | (b) Fungi       |
| (3) Abiotic components | (c) Aquarium    |
| (4) Decomposers        | (d) Animals     |
| (5) Biotic componetns  | (e) Forest      |



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## Topic 1 Ecosystem And Food Chain Very Short Answer Type Questions

1. Define ecosystem.



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2. What is meant by biological magnification ?



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3. List two man-made ecosystems.



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4. List two main components of our environment.



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**5. List two natural ecosystems.**



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**6. List two biotic components of a biosphere.**



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7. We often use the word environment. What does it mean ?



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8. Name two decomposers operating in our ecosystem



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9. Write one negative effect, on the environment, of affluent life style of few persons of a society.



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10. Name the two abiotic components of ecosystem.



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**11.** What are the various steps in a food chain called ?



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**12.** Why do producers always occupy the first trophic level on every food chain ?



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**13.** Why are green plants called producers ?



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**14.** In a food chain of frog, grass, insect and snake, assign trophic level to frog.



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**15.** The first trophic level in a food chain is always a green plant. Why ?



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**16.** Mention the role of micro-organisms like bacteria and fungi.



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**17.** Mention the role of decomposers in ecosystem.



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**18.** Name the organism (s) belonging to fourth trophic level in the food chain comprising of :  
Snakes, Insects, Frogs, Plants, Hawks.



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**19.** In the following food chain, grass provides 4000 J of energy to the grasshopper.

Grass, Grasshopper, Frogs, Snakes

How much energy will be available to snakes and frogs ?





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**20.** Consider a food chain of the following :

fish, crab, plankton, shark.

Arrange the above chain in proper order of trophic level.



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**21.** What will happen if we kill all the organisms in one trophic level ?



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**22.** Consider a food chain consisting of:

Wheat, Rat, Snakes, Peacock.

What will happen if all the snakes are killed ?



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**23.** Which of the following are always at the second trophic level of food chain ?

Carnivores, Autotroph, Herbivores.



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**24.** Choose one consumer each that belongs to the second and third trophic levels from the organisms:

Eagle, Frog, Tiger, Rabbit, Fox.



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**25.** Pesticides added to a field is seen in increased amount in the crop and in the birds that feed on them. What is this phenomenon called ?



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26. What will be the amount of energy available to the organisms of the 2<sup>nd</sup> trophic level of a food chain, if the energy available at the first trophic level is 10,000 joules ?



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**Topic 1 Ecosystem And Food Chain Short Answer  
Type Questions I**



1. What are decomposers ? List two important roles they play in the environment.



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2. List two reasons to show that the existence of decomposers is essential in an ecosystem.



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3. Explain the role of decomposers in the environment.



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4. Differentiate between the food habits of organisms belonging to first and second trophic levels.



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5. Write any two differences between food chain and food web.



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6. What are top carnivores ? Give two examples.



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7. Discuss the feeding patterns in a food web.



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8. Write any four examples of abiotic factors.





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**9.** Why are only 4 or 5 trophic levels present in each food chain ?



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**10.** State with reason any two possible consequences of elimination of decomposers from the earth.



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**11.** Accumulation of harmful chemicals in our bodies can be avoided. Explain how this can be achieved ?



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**12.** Draw a labelled diagram to illustrate energy flow in an ecosystem.



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**13.** In a food chain comprising Tiger, plants and goat, which will :

(i) Transfer the maximum amount of energy.

(ii) Receive minimum amount of energy.



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**14.** Write the appropriate names of the trophic levels Z and X in the figure given below:



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**15.** In the food chain :

Grass → deer → lion Operating in a forest,

what will happen if all the :

(i) lions are removed ?

(ii) deers are removed ?



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**Topic 1 Ecosystem And Food Chain Short Answer  
Type Questions li**

1. What is an ecosystem ? List its two main components. We do not clean natural ponds or lakes but an aquarium needs to be cleaned regularly. Why is it so ? Explain.



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2. What is meant by food chain ? "The number of trophic levels in a food chain is limited." Give reason to justify this statement.



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3. (i) We do not clean ponds or lakes, but an aquarium needs to be cleaned. Why ?

(ii) What are the harmful byproducts of fertilizers industries ? How do they affect the environment ?

(iii) Why are crop fields known as artificial ecosystem ?



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4. What are biotic factors ? Give any two examples.



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5. What are consumers ? Name the four categories into which the consumers are further grouped.



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6. Explain the phenomenon of 'Biological Magnification'. How does it affect organisms belonging to different trophic levels particularly the tertiary consumers ?



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7. What are trophic levels? Give an example of a food chain and state the different trophic levels



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**8.** Define Ecosystem. Briefly describe the two types of ecosystem.



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**9.** Mention any three significance of a food chain.



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**10.** Why there is a progressive decline in the amount of energy at each trophic level ?



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**11.** Give reason to justify the following :

(i) The existence of decomposers is essential in a biosphere.

(ii) Flow of energy in a food chain is unidirectional.



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**12.** "Energy flow in food chains is always unidirectional". Justify this statement. Explain how the pesticides enter a food chain and subsequently get into our body.



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**13.** "Our food grains such as wheat and rice, the vegetables and fruits and even meat are found to contain varying amounts of pesticide

residues." State the reason to explain how and why it happens ?



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**14.** Why is only 10 % of energy made available to the next trophic level when green plants are eaten by herbivores ?



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**15.** Calculate the amount of energy available to lion in the following food chain if plants have 20,000 J of energy available from the sun.

Plant → Deer → Lion



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## Topic 1 Ecosystem And Food Chain Long Answer Type Questions

**1.** Define the following :

(i) Food chain,



(ii) Trophic level,

(iii) Producers,

(iv) Parasites.



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**2. Name the following :**

(i) Organisms feeding on animal and plant food.

(ii) Organisms breaking down wastes of living beings.

(iii) The organisms occupying the first trophic

level of any food chain.

(iv) A complex network of many interconnected food chains and feeding relationships.



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**3. Give any two examples of each :**

(i) Organisms occupying the first trophic level,

(ii) Carnivores

(iii) Biodegradable wastes of humans

(iv) Ecosystem



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4. (i) What is the full form of : UNEP

(ii) On what basis are organisms grouped as producers, consumers and decomposers ?

(iii) Write two problems that would arise if there were no decomposers in an ecosystem.



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**Topic 2 Biodegradable And Non Biodegradable Substances And Global Warming Multiple Choice Questions**

1. Ozone layer is essential because it absorbs most of the

A. infrared radiations

B. heat

C. solar radiations

D. ultraviolet radiation

**Answer: D**



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2. Which of the following is a non-biodegradable waste?

A. Cow-dung

B. Manure

C. Plastics

D. Kitchen waste

**Answer: C**



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## Topic 2 Biodegradable And Non Biodegradable Substances And Global Warming Match The Column

### 1. Match the Column

- |               |                                |
|---------------|--------------------------------|
| (1) Plastics  | (a) Incomplete combustion      |
| (2) CFCs      | (b) Sulphur and nitrogen oxide |
| (3) Acid rain | (c) Non - biodegradable waste  |
| (4) CO        | (d) depletes ozone layer       |



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## Topic 2 Biodegradable And Non Biodegradable Substances And Global Warming Very Short Answer Type Questions

1. Name the two important non-metallic oxides which causes acid rain :



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2. What is Ozone ?



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3. Why are some substance non-biodegradable ?



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4. Ozone layer is getting depleted at higher levels of the atmosphere



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5. . Name the chemical compound responsible for the depletion of ozone layer.



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6. Damage to the ozone layer is a cause of concern.



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7. Name the gas which is produced due to incomplete combustion of fossil fuel.



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**8.** What is the function of ozone in the upper atmosphere ?



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**9.** Why should biodegradable and non-biodegradable wastes be discarded in two separate dustbins?



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**10.** Which chemical is used in fire extinguishers? How is it harmful?



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**11.** What happens during the first step of ozone formation in the atmosphere?



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**12.** How is ozone formed in the upper atmosphere? Why is the damage of ozone layer a cause of concern to us ? State a cause of this damage.



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**13.** Select the item which is made up of biodegradable material - Plastic bag, Jute bag, nylon rope, kettle.



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14. Why is excessive use of CFCs a cause of concern?



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15. The following organisms form a food chain. Which of these will have the highest concentration of non-biodegradable chemicals ? Insects, Hawk, Grass, Snake, Frog. Name the phenomenon associated with it :



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**16.** . Name the chemical compound responsible for the depletion of ozone layer.



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**17.** Mention one negative effect of our affluent life style on the environment.



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**18.** State a way to prevent accumulation of harmful chemicals in our bodies.



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**19.** List two non-biodegradable wastes generated daily in kitchen which can be recycled.



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20. Which disease is caused in human beings due to depletion of ozone layer in the atmosphere.



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## Topic 2 Biodegradable And Non Biodegradable Substances And Global Warming Short Answer Type Questions I

1. What is Ozone ? How does it protect the organisms on the earth ?





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2. What is ozone and how does it affect any ecosystem ?



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3. List any four effects of ozone layer depletion.



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4. Industrialization is one of the main causes of deterioration of environment. List any four reasons in favour of this statement.



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5. It is said, there is a need to put a blanket ban on the products containing aerosols. What are aerosols? Why is there a demand to put a ban on them?



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6. Why do enzymes which break down carbohydrates in foods does not break down coal ?



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7. Give any two ways in which biodegradable substances would affect the environment.



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8. "The maximum concentration of harmful chemicals accumulates in human beings."

State the phenomenon involved and justify this statement.



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9. Write the harmful effects of using plastic bags, on the environment. Suggest alternatives to plastic bags.



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**10.** Traditional use of forest areas is not useful in maintaining biodiversity. Do you agree with this statement ? Explain with the help of an example.



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**11.** List two environment friendly practices or habits which need to be followed by every member of a family/ community. Explain how

these practices will support the "Save the Environment" mission.



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**12.** Why is Government of India imposing a ban on the use of polythene bags ? Suggest two alternatives to use these bags and explain how this ban is likely to improve the environment.



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**13.** In some states of our country there is a ban on the use of polythene bags for shopping. Why ? List there advantages of using jute or cloth bags over polythene bags.



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**14.** We often observe domestic waste decomposing in the bylanes of residential colonies. Suggest ways to make people realize that improper disposal of waste is harmful to the environment.



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## Topic 2 Biodegradable And Non Biodegradable Substances And Global Warming Short Answer Type Questions li

1. What is ozone ? Show the reactions of formation of ozone from oxygen in the atmosphere.



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2. Define is ozone ? How and where is it formed in the atmosphere ? Explain how does it affect an ecosystem.



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3. Explain the role of UV radiation in formation of ozone with the help of a chemical reaction. Name the pollutant and write its role in depletion of ozone layer.



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4. Why is damage to the ozone layer a cause for concern? What steps are being taken to limit this damage ?



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5. Explain how carbon dioxide and ozone layer of the atmosphere are important to life.



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6. When did the amount of Ozone in the atmosphere begin to drop sharply ? Why did this happen? How was this problem taken care of by UNEP ?



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7. Differentiate between biodegradable and non- biodegradable substances with the help of one example each. List two changes in habit that people must adopt to dispose non-

biodegradable waste, for saving the environment.



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8. What are the problems caused by the non-biodegradable wastes that we generate ?



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9. Explain why the use of plastic bags are banned in many places ? What could be more

environment- friendly alternative ?



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**10.** How can you help in reducing the problem of waste disposal ? Give any two methods.



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**11.** Give reasons :

(i) Kulhads have been banned for serving tea on platform.

(ii) Decomposers are not included in any food chain.

(iii) Producers are transducers of energy.



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## Topic 2 Biodegradable And Non Biodegradable Substances And Global Warming Long Answer Type Questions

1. What are chlorofluorocarbon ? How are they responsible for causing ozone hole in

atmosphere? What will be the consequences of ozone hole ?



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2. A non-biodegradable toxic chemical has entered into the food chain. Which type of food habit will you suggest to a man, vegetarian or non-vegetarian. Explain with the help of a food chain. The food chain which you would suggest, is advantageous in an another aspect. How ?



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## Ncert Corner Intext Questions

1. What are trophic levels? Give an example of a food chain and state the different trophic levels in it.



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2. Why are some substances biodegradable and some non-biodegradable?





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3. Give any two ways in which biodegradable substances would affect the environment.



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4. Give any two ways in which non-biodegradable substances would affect the environment.



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5. What is ozone and how does it affect any ecosystem ?



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6. How can you help In reducing the problem of waste disposal? Give any two methods.



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1. Which of the following groups contain only biodegradable items ?



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2. Which of the following constitute a food-chain?



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**3.** Which of the following are environment-friendly practices?



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**4.** What will happen if we kill all the organisms in one trophic level ?



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5. Will the impact of removing all the organisms in a trophic level be different for different trophic levels? Can the Organisms of any level be removed without causing any damage to the ecosystem ?



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6. What is biological magnification ? Will the levels of this magnification be different at different levels of the ecosystem.





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7. What are the problems caused by the non-biodegradable wastes that we generate ?



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8. If all the waste we generate is biodegradable, will this have no impact on the environment.



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9. Why is damage to the ozone layer a cause for concern? What steps are being taken to limit this damage ?



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