## **OUR OWN HIGH SCHOOL, AL WARQA'A, DUBAI**

### GRADE: 10 Our Environment WORKSHEET-1

- 1. Define biodegradable wastes.
- 2. Define decomposers. Name one decomposer.
- 3. Which of the following belong to the same trophic level? Tree, Frog, Snake, Grass, Lizard.
- 4. Name the group of chemical compounds which damages the ozone layer.
- 5. What would happen if all the decomposers were eliminated from the Earth? Explain with reasons.
- 6. Give an example of a food chain operating in fresh water pond. Mention the food habit of each trohic level in this food chain.
- 7. Consider the food chain: Grass →Deer→Lion. What will happen, if lions are removed from the above food chain?
- 8. In terms of energy, which is at an advantageous position-a vegetarian or a non-vegetarian? Why?
- 9. With the help of food chain explain how biological magnification of harmful chemicals can occur.
- 10. What is the difference between the food habits of organism belonging to the forest and third trophic levels? Give example each of organisms belonging to these trophic levels.
- 11. What is a food chain? Write the food chain operating in a pond. State the food habit of each trophic level in this food chain.
- 12. Where is ozone layer found in atmosphere? What is its importance? Write the harmful effects UV rays.
- 13. 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 another aspect. How?

# OUR OWN HIGH SCHOOL, AL WARQA'A, DUBAI GRADE: 10 Our Environment WORKSHEET-2

- 1. Name the process by which the volume of solid wastes can be reduced.
- 2. What is meant by non-biodegradable waste materials?
- 3. Why plants are called producers?
- 4. Which of the following belong to the same tropic level? Goat, Spider, Plants, Hawk, Rat.
- 5. State two causes and two effects of the depletion of ozone layer in the atmosphere.
- 6. How non-biodegradable substances would affect the environment?
- 7. Given below is a food chain
  Grass→Grasshopper →Frog→Snake →Peacock
  What will happen to the member of different trophic level in the food chain, if all the frogs of that area are removed?
- 8. How do food chains get shortened? How does their shortening affect the biosphere?
- 9. The following are the organisms found in the grass land. Construct a food chain with four trophic levels.

  Seed eating birds, Grass hopper, Lion, Green plants, Rat, Deer, Frog, Snake.
- 10. Consider the following food chains

Grass  $\rightarrow$ Mice  $\rightarrow$ Snakes  $\rightarrow$ Peacocks

If in this chain, 100 J of energy is available at the producer level, then calculate the energy transferred to the peacocks as food. State the law used in calculations.

- 11. What is ten per cent law? Explain with an example how energy flows through different trophic levels.
- 12. What is ozone layer? Write about its importance. Which radiations are absorbed by ozone layer? What are the causes of the depletion of ozone layer? Which diseases are likely to be caused if the ozone layer becomes thinner?

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### **GRADE: 10** Our Environment WORKSHEET-3

- 1. What would happen if the ozone layer in the atmosphere completely disappears?
- 2. Name two waste materials which can be recycled?
- 3. Write the full name of DDT.
- 4. Give the names of two non-biodegradable wastes which pollute our environment.
- 5. What is the difference between a food chain and a food wed?
- 6. What is the difference between the food habits of organisms belonging to second and fourth trophic levels? Give example each of organisms belonging to these trophic levels.
- 7. Which food chains are advantageous in terms of energy? Support your answer giving one example.
- 8. How biodegradable substances would affect the environment.
- 9. What is biological magnification? Will the levels of this magnification be different at different levels of the ecosystem?
- 10. Why are some substance biodegradable and some non-biodegradable?
- 11. What is a food chain? How does study of food chain in an area or habitat help us? Give an example of four-step food chain operating in a large lake.
- 12. Consider the following food chains:
  - (a) Plants  $\rightarrow$  Mice  $\rightarrow$  Snakes  $\rightarrow$  Hawks
  - (b) Plants→Mice→Hawks

If energy is available at the producer level in both the food chains is 100 J, in which case will hawks get more energy as food and by how much? Justify your answer.

- 13. What is garbage? What does garbage consists of? How would you dispose the following wastes?
  - (i)A domestic waste like vegetable peels
  - (ii) Industrial wastes like metallic cans
  - (iii) Plastic material.

- 1. What is the ultimate source of energy for organisms?
- 2. What are the various steps of food chain called?
- 3. How is ozone formed?
- 4. What are omnivores? Give one example.
- 5. Define an ecosystem.
- 6. How biodegradable substances would affect the environment.
- 7. How non-biodegradable substances would effect the environment.
- 8. What will happen if we kill all the organisms in one trophic level?
- 9. What is biological magnification? Will the levels of this magnification be different at different levels of the ecosystem?
- 10. What are the problems caused by the non-biodegradable wastes that we generate?
- 11. What is the role of decomposers in the ecosystem?
- 12. (a) What are 'Ecological Pyramids'? Draw an ecological pyramid having four trophic levels with snake as one of its components. (b) The number of malaria patients in a village increased tremendously when large number of frogs were exported from the village. What could be the cause for it? Explain with the help of a food chain.

- 1. Give an example of a four step food chain operating in grassland. Name the secondary consumer in this food chain.
- 2. What are ecological pyramids?
- 3. Write the full form of CFC.
- 4. Name the process by which the volume of solid wastes can be reduced.
- 5. Give two harmful effects of UV radiation.
- 6. Why is damage to the ozone layer a cause for concern? What steps are being taken to limit this damage?
- 7. What is meant by non-biodegradable waste material? Give its two examples.
- 8. How does recycling of matter or waste materials help in ecological balance?
- 9 What will happen if all the deer are removed from the earth?
- 10. Distinguish between the autotrophs and decomposers.
- 11. Differentiate between biodegradable and non-biodegradable substances.
- 12. How is recycling of waste materials help in maintaining ecological balance?
- 13. State and explain the 10 per cent law.
- 14. What is ozone layer? Write about its importance. Which radiations are absorbed by ozone layer? What are the causes of the depletion of ozone layer? Which diseases are likely to be caused if the ozone layer becomes thinner?