



# INDIAN SCHOOL AL WADI AL KABIR



Class: VI	DEPARTMENT: SCIENCE 2022-2023	DATE: 11.1.2023
WORKSHEET NO: 14 WITH ANSWERS	TOPIC: GARBAGE IN, GARBAGE OUT	NOTE: A4 FILE FORMAT
NAME OF THE STUDENT:	CLASS & SEC:	ROLL NO.

## 1. VERY SHORT ANSWERS: (1M)

1. What are biodegradable wastes? [Hint: Those wastes that can be decomposed by microorganisms are known as biodegradable wastes.]
2. Give two examples for Non-biodegradable wastes. [Hint: Plastic and metals.]
3. Name the manure made from kitchen wastes. [Hint: Compost.]
4. What type of garbage is collected in green dustbins? [Hint: Biodegradable garbage like waste from kitchen, plants and animals.]
5. Sort the materials as biodegradable and non-biodegradable:  
Kitchen waste, glass lens, egg shell, plastic bottle, animal wastes, dried leaves, metal Container. [Hint: Biodegradable: Kitchen waste, egg shell, animal wastes, dried Leaves. Non – biodegradable: glass lens, plastic bottle, metal container.]
6. Name the organisms which are used in vermicomposting. [Hint: A type of earthworms called redworms]
7. Name an alternative for expensive chemical fertilizers and manures from the market to enrich agricultural fields. [Hint: Vermicompost]
8. Why do we consider plastic bags a curse for stray animals? [Hint: When stray animals look for food in these bags, they end up swallowing these and can result in their death.]
9. What do you do with the left-over food at home? [Hint: Left-over food at home along with other kitchen waste can be dumped into compost pit to convert them into manure.]

*For the questions that follows, two statements are given: - one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below:*

- i) Both A and R are true and R is the correct explanation of the assertion.
  - ii) Both A and R are true but R is not the correct explanation of the assertion.
  - iii) A is true but R is false.
  - iv) A is false but R is true.
10. **Assertion (A):** After a landfill site is completely filled with garbage it is converted into a park and no building is allowed to be constructed for next 50 years.  
**Reason (R):** Human habitat should be away from landfills to avoid harmful gases, diseases and dirty condition of landfills.  
i) Both A and R are true and R is the correct explanation of the assertion.
11. **Assertion (A):** Compost making areas are developed near the landfill.  
**Reason (R):** It is done to utilize some of the useful components of garbage.  
i) Both A and R are true and R is the correct explanation of the assertion.

12. **Assertion (A):** Vermicomposting is done with the help of red worms.

**Reason (R):** We can recycle paper to get useful products.

ii) Both A and R are true but R is not the correct explanation of the assertion.

## **II.PASSAGE BASED QUESTIONS:**

Read the given passage and answer the following questions.

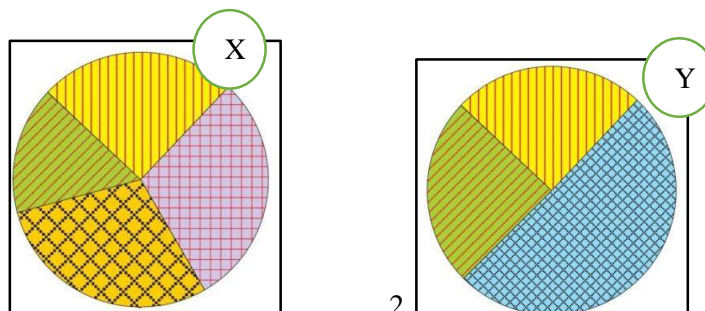
Safari karamcharis collect the garbage in trucks and take it to a low lying open area, called a landfill. There the part of the garbage that can be reused is separated out from the one that cannot be used as such. Thus, the garbage has both useful and non-useful components. The non-useful component is separated out. It is then spread over the landfill and then covered with a layer of soil. There are some things in the garbage rot. They form manure which is used for the plants. The rotting and conversion of some materials into manure is called 'composting'.

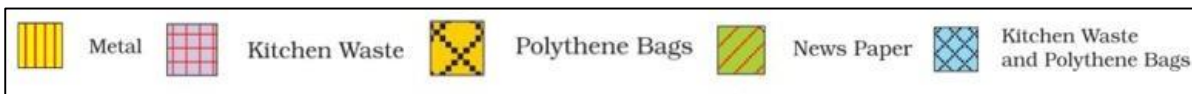
In some cities and towns, municipalities provide separate dustbins for collecting two kinds of garbage. Usually one is coloured blue and the other green. The blue bin is for materials that can be used again -such as Plastics, metals and glass. These are the materials that do not rot in the garbage heaps. The Green bins are for collecting kitchen and other plant or animal wastes. This type of wastes rot completely when buried in the soil. Thus, it is necessary to separate wastes into two groups. You must have noticed garbage heaps of dried leaves on the roadside. Most of the time these are burnt. But burning these produces smoke and gases that are harmful for our health.

1. Burning of heaps of dried leaves on the roadside can affect our health. Give reason. [Hint: Burning of these materials can produce smoke and gases and it is harmful to human health.]
2. What is composting? [Hint: The process of rotting and converting of wastes materials into manure is called composting.]
3. Why is it important to have separate dustbins for wastes materials? [Hint: Waste materials like metals, glass and plastic do not rot over time in the garbage heap, so they need to be separated out from products like animals and plants wastes, kitchen wastes as they rot completely when buried in the soil.]
4. How can throwing of plastic bags on roads affect the drainage system? [Hint: When plastic bags are thrown on roads or other places, possibilities are there that they may get into the drainage system, blocking them partly or completely. As a result, the system's water spills on the roads leading to a flood like situation.]

## **III.CASE STUDY BASED QUESTIONS:**

The Pie charts A and B shown in the given figure are based on waste segregation method adopted by two families X and Y respectively.





1. Which of the two families X or Y do you think is more environmental conscious and why? [Hint: X- The kitchen waste and polythene bags are disposed of separately.]
2. Sort out the garbage that should go to the blue dustbins provided by the municipality. [Hint: Metal and polythene bags.]
3. Which of the two families should cut short wastage of newspaper? Suggest a suitable method to help them. [Hint- Both the families, Use both sides of the paper to write. Use a slate for rough work, Recycle paper.]

#### **IV .a) SHORT ANSWER TYPE QUESTIONS: (2M)**

1. Differentiate composting and vermicomposting?  
[Hint: Composting:-Converting plant and animal waste including that from kitchen, into manure, is called composting. Vermicomposting: -Method of making compost from kitchen garbage using red worms is called vermicomposting.]
2. Burning or heating of plastics should be discouraged. Give reasons.  
[Hint: All kinds of plastics give out harmful gases, upon heating or burning. These gases may cause many health problems, including cancer, in humans.]
3. What are the different methods of garbage disposal?  
[Hint: There are different methods of disposal of garbage depending on the nature of garbage. Some of the effective measures are composting, vermicomposting, landfill, recycling and reuse.]

#### **IV. b) SHORT ANSWER TYPE QUESTIONS: (3M)**

1. How is compost prepared from kitchen waste?  
[Hint: The kitchen wastes generally include vegetable and fruit peels, egg shells, waste food, tea leaves etc., which are completely biodegradable. Put these waste into a pit and cover them with soil. After some days, we observe that they are completely degraded. Take them out of the pit and this final form of the wastes, mixed with soil, is called compost.]
2. What is landfill? How is it done?  
[Hint: Landfill is a low-lying open area where the garbage collected from a city or town is dumped. The waste is then compacted with compactor. It is covered with a layer of soil and another layer of trash is added and compacted. The process is repeated till the landfill is full. The area is later converted into a park or playground.]

#### **V. LONG ANSWER TYPE QUESTIONS. (5M)**

1. Suggest measures to minimize the over use of plastics and deal with garbage?  
[Hint: Make a minimum use of plastic bags or reuse the bags, Insist shopkeepers to use paper bags and carry a cloth or a jute bag for shopping, Do not store eatables in plastic bags, Never burn plastic bags and other plastic items, Do not put garbage in plastic bags and throw it away.]

2. What are the four Rs of waste disposal? Explain each in a sentence.
- Refuse: Say no to the non-biodegradable wastes such as plastic bags, packaging cans, metal wastes, etc.
  - Reduce: Decreasing the wastes by consuming less and throwing less.
  - Reuse: Instead of throwing the substances as waste, reuse them wherever possible.
  - Recycle: The process of converting waste materials into new products is called recycling.
3. Describe the process of vermicomposting.
- Take a large wooden box or dig a pit.
  - Spread a net or fine mesh or sand at the bottom of the box.
  - Spread biodegradable waste and on top of it spread a layer of soil.
  - Sprinkle water to make the layer moist and place some red worms in the pit.
  - Add vegetable and fruit waste to feed the redworms.
  - Mix and move the top layer of the pit frequently.
  - Compost will be ready after 3-4 weeks.

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