



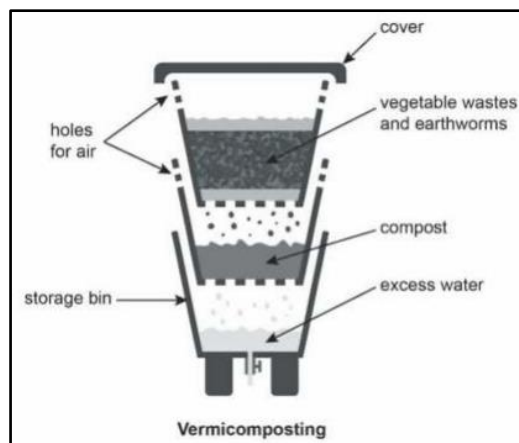
INDIAN SCHOOL AL WADI AL KABIR



CLASS: VI	DEPARTMENT: SCIENCE 2023-2024	DATE: 14/12/2023
WORKSHEET NO: 14 WITH ANSWERS	TOPIC: GARBAGE IN, GARBAGE OUT	NOTE: A4 FILE FORMAT
NAME OF THE STUDENT:	CLASS & SEC:	ROLL NO.

I. OBJECTIVE-TYPE QUESTIONS:

1. A child notices that a lot of newspapers are collected as trash and decides to use them effectively. Several pieces of newspapers were taken and submerged in water for a day. A thick paste of paper was created by pounding it. The wet paste was spread on wire mesh fixed to an old frame. Once the water drained out, the layer of paste from the frame was removed and kept in the Sun until it dried like paper. In what ways did the process ensure the effective disposal of garbage?
 - a) The process was recycle to make a new object.
 - b) The process did recycle to make the same object.**
 - c) The process decreased the wastage of items that do not rot.
 - d) The process converted non-compostable waste into compostable waste.
2. Vermicomposting is a process of recycling degradable waste. Earthworms break down the waste into compost that can be used as manure. The diagram shows the details of the process.



Which of these statements is true about vermicomposting?

- a) It breaks down waste naturally.**
- b) It produces harmful substances.

- c) It requires the presence of light.
- d) It takes place in the absence of oxygen.
3. Two heaps of garbage, heap A with kitchen waste and heap B with plastic waste were kept in two different pits and covered by soil. The pits were left for a week, and after that soil was removed to check the changes in the garbage. It was observed that garbage in heap A turned black and did not smell, whereas garbage in heap B remained as is. Based on the activity, which statement correctly describes the features of compostable and non-compostable waste?
- a) Compostable waste remains the same as it does not rot.
- b) Non-compostable waste turns black once it rots completely.
- c) Non-compostable waste does not smell after it rots completely.
- d) Compostable waste turns black and does not smell after it rots completely.**
4. What type of garbage after segregation is spread in the landfill?
- a) The one that can only be reused.
- b) The one that can only be composted.
- c) The one that can either be reused or composted.
- d) The one that can neither be reused nor composted.**
5. The table shows different bins used to collect different types of waste.

Group 1	Group 2	Group 3	Group 4
broken glass	metal scraps	vegetable peels	plastic bottles
			
orange bin	red bin	green bin	blue bin

The waste from which bin is suitable for composting?

- a) Orange
- b) Red
- c) Green**
- d) Blue
6. A household X finds that it produces a lot of trash. Which of these practices should they adopt such that the amount of trash from household X can be reduced?
- a) Use non-rechargeable batteries
- b) Switch over to single-use plastic
- c) Prefer fresh juices over canned juices**

d) Prefer disposable crockery over steel utensils

For the questions that follow, 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.

7. **Assertion (A):** After a landfill site is filled with garbage it is converted into a park and no building is allowed to be constructed for the next 50 years.

Reason (R): Human habitat should be away from landfills to avoid harmful gases, diseases and dirty conditions of landfills.

i) Both A and R are true and R is the correct explanation of the assertion.

8. **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.

9. **Assertion (A):** Blue bins are used for collecting materials that can be recycled.

Reason (R): The wastes generated in hospitals are non-hazardous in nature.

iii) A is true but R is false.

10. **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.

II. SHORT ANSWER TYPE QUESTIONS (2M):

1. Name the following:
 - a) Manure made from kitchen waste. **[Hint: Compost.]**
 - b) Organisms which are used in vermicomposting. **[Hint: A type of earthworms called redworms]**
 - c) An alternative for expensive chemical fertilizers and manures from the market to enrich agricultural fields. **[Hint: Vermicompost]**
2. What are biodegradable wastes? **[Hint: Those wastes that can be decomposed by microorganisms are known as biodegradable wastes.]**
3. 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.]**
4. What type of garbage is collected in green dustbins? **[Hint: Biodegradable garbage like**

waste from the kitchen, plants and animals.]

5. Sort the materials as biodegradable and non-biodegradable:
Kitchen waste, glass lens, eggshell, plastic bottles, animal wastes, dried leaves, metal Container. **[Hint: Biodegradable: Kitchen waste, eggshell, animal wastes, dried Leaves. Non – biodegradable: glass lens, plastic bottle, metal container.]**
6. What is composting? **[Hint: The process of rotting and converting waste materials into manure is called composting.]**
7. 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 them which can result in their death.]**
8. What do you do with the leftover 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.]**
9. Differentiate composting and vermicomposting.
**[Hint: Composting: Converting plant and animal waste including that from the kitchen, into manure, is called composting.
Vermicomposting: The method of making compost from kitchen garbage using red worms is called vermicomposting.]**
10. 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.]
11. 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.]

III. SHORT ANSWER TYPE QUESTIONS (3M):

1. Why is it important to have separate dustbins for waste materials? **[Hint: Waste materials like metals, glass and plastic do not rot over time in the garbage heap, so they need to be separated from products like animal and plant wastes, and kitchen wastes as they rot completely when buried in the soil.]**
2. How can the 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.]**

3. 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 this waste into a pit and cover it 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.]

4. What is landfill? How is it done? **[Hint: A landfill is a low-lying open area where the garbage collected from a city or town is dumped. The waste is then compacted with a 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 overuse of plastics and deal with garbage.

[Hint: Make a minimum use of plastic bags or reuse the bags, Insist shopkeepers 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.

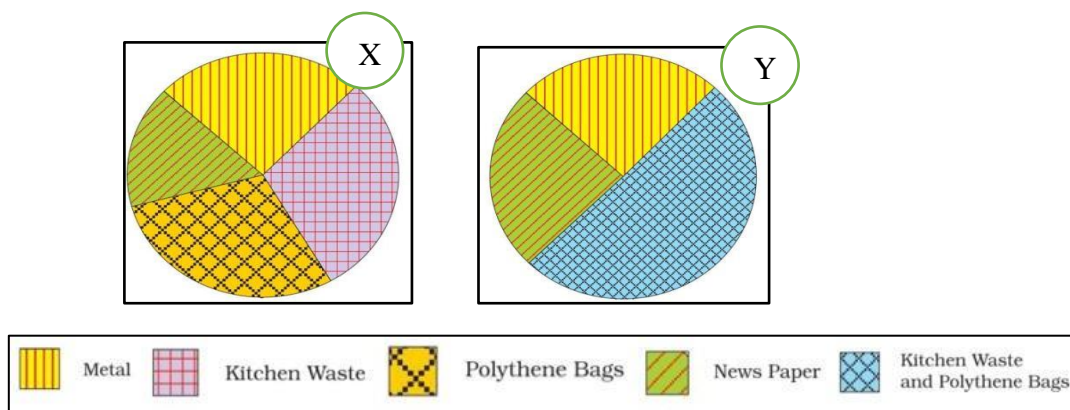
- **Refuse: Say no to non-biodegradable wastes such as plastic bags, packaging cans, metal wastes, etc.**
- **Reduce: Decreasing the waste by consuming less and throwing less.**
- **Reuse: Instead of throwing the substances as waste, reuse them wherever possible.**
- **Recycle: The process of converting 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.**
- **The compost will be ready after 3-4 weeks.**

V. SOURCE-BASED/ CASE STUDY-BASED QUESTIONS:

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



- a. Which of the two families X or Y do you think is more environmentally conscious and why? **[Hint: X- The kitchen waste and polythene bags are disposed of separately.]**
- b. Sort out the garbage that should go to the blue dustbins provided by the municipality. **[Hint: Metal and polythene bags.]**
- c. Which of the two families should cut short the wastage of newspapers? 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.]**

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