

PARAGON CONVENT SCHOOL

SECTOR : 24 B, CHANDIGARH

LESSON - 17

GARBAGE IN, GARBAGE OUT

Summary :

- Biodegradable wastes are decomposed by the micro-organisms found in nature.
- Non-biodegradable wastes are not decomposed by the micro-organisms in nature. They keep getting accumulated.
- Garbage is segregated into useful and non-useful components and then non-useful garbage is dumped in a landfill.
- Biodegradable garbage can be composted into manure, which can be used for agriculture.
- Vermicomposting is process in which the plant waste is composted by worms.
- To reduce the amount of garbage we need to follow the three R's; reduce, reuse and recycle.

Multiple Choice Questions (Page No. 205)

1. (a) 2. (d) 3. (c) 4. (b) 5. (b)

Multiple Choice Questions (Page No. 207)

1. (d) 2. (a) 3. (a) 4. (d) 5. (a)

SECTION A

Oral Questions

Q1.- What is biodegradable waste?

Ans.- Wastes that can be decomposed by the action of microorganisms into simpler and harmless substances so that they cannot harm the environment are called biodegradable wastes.

Q2.- Why is disposal of non-biodegradable waste a big concern?

Ans.- Disposal of non-biodegradable wastes is a big problem because this type of waste does not rot or decay.

Q3.- What is the best way to dispose of leftover food cooked at home?

Ans.- Composting is the best way to dispose of leftover food cooked at home.

Q4.- Which is better and why? Composting or vermicomposting.

Ans.- Vermicomposting is better than composting because in vermicomposting the composting occurs very fast with the help of redworms.

Science Quiz

Q1.- Name two gaseous source of waste.

Ans.- Vehicular exhaust, burning of coal / smoke from factories and industries

Q2.- Name two biodegradable and two non-biodegradable waste.

Ans.- Biodegradable waste - peels and cuttings of fruit and vegetables, animal dung / leaves / bones / leftover food / plant residues.

Non-biodegradable waste - plastic objects, broken glass pieces / iron nails / metallic utensils

Q3.- Name two waste material that can be recycled.

Ans.- Plastic objects and used paper / glass containers / metal objects

Q4.- What we call the manure made from biodegradable waste?

Ans.- Compost

WORKSHEET

Tick (✓) the correct options

1. (d) 2. (d) 3. (b) 4. (b) 5. (d)

Fill in the blanks

1. garbage 2. composting 3. non-biodegradable
4. non-biodegradable 5. Compost 6. waste

SECTION B

Multiple Choice Questions

1. (a) 2. (b) 3. (c)

Very Short Answer Questions

Q1.- Name a natural fertiliser.

Ans.- Compost

Q2.- Name - a) a solid, b) a liquid and c) a gaseous form of waste.

Ans.- (a) Fruit and vegetable peels (b) Water containing detergent (c) Smoke released by vehicles

Q3.- Mention at least two benefits of waste management.

Ans.- (i) It reduces air, water and land pollution.

(ii) It provides healthy and clean environment.

(iii) It conserves the natural resources.

(iv) It saves money.

Q4.- What types of worms are used for vermicomposting?

Ans.- Redworms are used for vermicomposting.

Q5.- What type of garbage is collected in blue dustbins and green dustbins?

Ans.- The blue dustbin is used for collecting non-biodegradable wastes. E.g, plastic or metal objects.

The green dustbin is used for collecting biodegradable wastes. E.g, fruit and vegetable peels, leftover food.

Short Answer Questions

Q1.- Distinguish between biodegradable and non-biodegradable waste.

Ans.- Waste that can be decomposed by the action of microorganisms (like bacteria and fungi) into simple and harmless substances so that they cannot harm the environment are called biodegradable waste. Peels and cuttings of fruits and vegetables, animal dung, agricultural wastes are some examples of biodegradable waste.

Waste that cannot be decomposed by the action of microorganisms into harmless substances are called non-biodegradable waste. The objects made from plastic, glass and metals are non-biodegradable waste.

Q2.- What are the advantages of recycling used paper?

Ans.- By recycling used paper, we can make new paper from old, used and discarded paper and can save many trees.

Q3.- What is meant by recycling?

Ans.- Making useful things from waste materials is called recycling. Materials like glass, metal, plastic and paper are recycled to make fresh glass, metal, plastic and paper.

Q4.- Why is composting better than burning leaves?

Ans.- Composting is better than burning of leaves because composting results in the production of natural fertiliser (compost) while burning of leaves produces smoke and gases that are harmful for the human health and environment.

Q5.- On the beginning of a new session, Rohan's mother gives him a new bag. Rohan gives his old bag to his maid's little daughter, Radha. Radha very happily uses it.

A) Why do you think Rohan gave his bag to Radha?

B) Which value is shown here by Rohan?

Ans.- (a) Rohan gave his bag to Radha as he has a new bag to use and does not need his old bag. Radha needed that bag to carry her books to school.

(b) Caring, sharing, kindness and being eco friendly by the reuse of the thing.

Q6.- Why is segregation of biodegradable and non- biodegradable wastes necessary?

Ans.- Segregation or separation of biodegradable and non-biodegradable waste is necessary because biodegradable waste are decomposed through composting and vermicomposting while non-biodegradable waste are disposed by other methods like incineration.

Long Answer Questions

Q1.- What are the harmful effects of wastes?

Ans.- The harmful effects of wastes are as follows -

- (i) Wastes make the surroundings dirty and ugly.
- (ii) Wastes give foul smell and the dumped garbage becomes breeding ground for flies and mosquitoes which spread various diseases.
- (iii) Drains get choked and overflowing of sewage may contaminate drinking water.
- (iv) Non-biodegradable wastes can cause various types of pollution.
- (v) They can block the digestive canals of stray animals, if eaten by them.

Q2.- Explain how plastic is a boon.

Ans.- Plastic is a boon because plastics have made our life easy and comfortable. Most of the things we use in our daily life are made up of plastic. It will not be wrong to say that we live in plastic age. Plastics are used in a wide range of products from paper clips to spaceships due to their lightweight, relatively low cost and resistance to water and microorganisms. Plastics can be given any colour, shape and can be used for making anything. Plastics are very durable. All this has made plastic a boon for us.

Q3.- What are the basic approaches to the management of wastes?

Ans.- The basic approaches towards the waste management involves production of minimum wastes by practising three R's (reduce, reuse and recycle) and proper

disposal of wastes.

Reduce - We can reduce the amount of waste by throwing less. For example, carry your own cloth bag when you go for shopping to avoid the use of polythene bags.

Reuse - Reuse is to use an item more than once. It is another method of reducing waste production. For example, old furniture and clothes should be donated to the poor so that they can be reused.

Recycle - Recycling is making of useful things from waste materials. Materials like glass, plastic, metal and paper are recycled to make fresh glass, metal, plastic and paper products.

Q4.- List various methods of garbage disposal. Explain any one.

Ans.- The biodegradable and non-biodegradable wastes need to be disposed of properly. They should first be segregated and then disposed through various methods. The methods of garbage disposal are -

(i) Composting (ii) Landfill (iii) Incineration

Landfill - Landfill is a large, low lying, open area outside the city or a town where the garbage collected from a city or town is dumped. The garbage is spread out on the landfill and covered with soil. Garbage buried in landfill stays in it for a long time as it decomposes very slowly. When the landfill is completely filled, a park may be developed on it. The Indraprastha park in Delhi is an example of a landfill park.