

Chapter 15: Air Around Us

Multiple Choice Questions

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1. (a)
2. (b)

Multiple Choice Questions

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1. (a)
2. (b)

EXERCISE

A. Tick (✓) the correct options.

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

B. Fill in the blanks.

1. respiration
2. wind
3. mixture
4. carbon dioxide
5. Windmill

C. Match the following.

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

D. Very Short Answer Questions.

1. Oxygen
2. Carbon dioxide
3. Oxygen
4. Smoke and dust particles
5. Atmosphere
6. Underground animals get oxygen for breathing from the air present between the soil particles.

E. Short Answer Questions.

1. The blanket of air that surrounds the earth is called atmosphere. The major components of air are nitrogen, oxygen, carbon dioxide and a few other gases, water vapour and dust particles.
2. (a) The doctor provides extra oxygen to Priyanka's uncle by using an oxygen cylinder.

- (b) This shows her caring nature and ability to take quick decisions.
3. Some variations in the composition of air from place to place are:
 - (a) The air over industrial areas usually has a higher amount of carbon dioxide and dust in it than the air over open spaces.
 - (b) In coastal areas, air has more water vapour than in areas away from the coast.
 4. The air is useful to us in many ways. Its two uses are:
 - (i) Oxygen present in the air is used by all living organisms for respiration.
 - (ii) Wind helps in the dispersal of seeds of plants. It also helps in pollination.
 5. Two ways by which we can reduce air pollution are:
 - (i) Planting as many trees as possible
 - (ii) Using cleaner fuels like CNG in vehicles instead of petrol and diesel
 6. We should breathe through the nose because the fine hair and mucus present inside the nose prevent dust particles from entering our lungs. If we breathe through the mouth, harmful dust particles and germs may enter our body and affect our health.

F. Long Answer Questions.

1. Animals inhale oxygen from the air and exhale carbon dioxide which goes into the air. The burning of fuels, uses oxygen from the air and gives out carbon dioxide. Green plants use carbon dioxide from the air for the process called photosynthesis during day and give out oxygen. The process of respiration in plants takes place during day as well as night. But during day, the oxygen released during photosynthesis is more than the oxygen used in respiration. Therefore, the oxygen released in the atmosphere is consumed by animals for respiration. This is how, plants and animals maintain the balance of oxygen and carbon dioxide in the air.
2. To show the presence of air in water

Things needed: A beaker, tripod stand, a Bunsen burner and some water

Method: Take some water in a beaker and keep it on a tripod stand. Heat the water slowly by using a Bunsen burner.

Observation: You will observe that, much before the water begins to boil, tiny bubbles appear on the inner side of the beaker. These bubbles come from the air dissolved in water. Actually, when water is heated, the solubility of air in it decreases. As a result, the air dissolved in water comes out in the form of tiny bubbles.

When the dissolved gas gets removed through heating and the same water is heated again after some time, we do not observe bubbles. On further heating, the water begins to boil and turns into vapour. This shows that air is present in water.

Chapter 16: Garbage In, Garbage Out

Multiple Choice Questions

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1. (a) 2. (d)

Multiple Choice Questions

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1. (a) 2. (d)

EXERCISE

A. Tick (✓) the correct options.

1. (d) 2. (d) 3. (b) 4. (b) 5. (d)
6. (c) 7. (b)

B. Fill in the blanks.

1. garbage 2. non-biodegradable 3. recycling 4. trees
5. waste 6. Plastics 7. minimum
8. earthworms

C. Very Short Answer Questions.

1. Compost
2. (a) vegetable and fruit peels (b) soapy water
(c) vehicular exhaust
3. One benefit of waste management is that it reduces air, water and land pollution.
4. Redworms
5. In blue dustbin, non-biodegradable waste materials such as plastics, metals and glass are collected.
In green dustbin, biodegradable waste materials such as kitchen wastes and other plant and animal wastes are collected.
6. Kitchen waste is a biodegradable material.

D. Short Answer Questions.

1. Wastes that can be decomposed by the action of microorganisms into simple and harmless substances, so that they cannot harm the environment, are called biodegradable wastes. Peels and cuttings



of fruits and vegetables, animal dung, agricultural wastes are some examples of biodegradable wastes.

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

2. By recycling used paper, we can make new paper from old, used and discarded papers. This can save many trees.
3. 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.
4. Composting results in the production of natural fertiliser (compost) while burning of leaves produces smoke and gases that are harmful for our health. That is why, composting is better than burning leaves.
5. (a) Rohan gave his old bag to Radha because he was aware about the 4R principle. Accordingly, he wanted to reuse his bag.
(b) He is concerned about the environment.
6. Separation of biodegradable and non-biodegradable wastes is necessary because biodegradable wastes are decomposed through composting and vermicomposting while non-biodegradable wastes are disposed by other methods like incineration and recycling.

E. Long Answer Questions.

1. 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 and shape and they can be used for making a lot of objects. Plastics are very durable. All this has made plastic a boon for us.
2. The methods of garbage disposal are—
(a) Composting (b) Landfill (c) 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 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.