



पुना International School

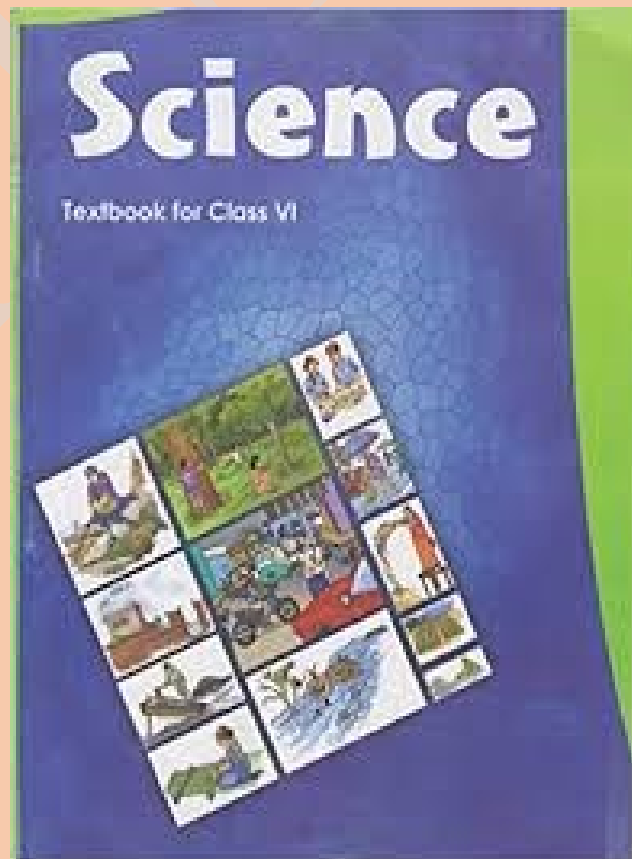
Shree Swaminarayan Gurukul, Zundal

Class - VI

SCIENCE

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Class–VI Science
CHAPTER – 14
Water

Key points:

WATER : NATURAL GIFT

- Water is an inexhaustible or renewable natural resource.
- Three -fourths of the earth's surface is covered with water.
- Nearly 70% of our body is made up of water and the rest is solid matter.
- Water is essential for life.
- Water which is fit for human consumption is known as **Fresh water** or **Potable water**.
- Only 2.6% of total water is fresh water.
- Only 0.01% of the total water reaches humans and animals.

SOURCES OF WATER

- Rain water
- Ground water
- Surface water
- Rivers and streams
- Lakes and ponds
- Sea water

STATES OF WATER

Water on the earth exists in three states : solid , liquid and gas.

WATER AND ITS FORMS

- Ice is the solid state of water.
- Water is the liquid state of water.
- Vapour or steam is the gaseous state of water.

· Water Cycle:

The cycle of processes by which water circulates between the earth's oceans, atmosphere, and land, involving precipitation as rain and snow, drainage in streams and rivers, and return to the atmosphere by evaporation and transpiration.

Water Conservation: It is the wise and judicious use of water.

Ways of conserving water:

1. Get all leaking taps repaired.
2. Use a bucket for taking bath instead of a shower.
3. Collect rainwater and use it for gardening and recharging ground water.
4. Wash your cycles, cars, etc. with a bucket of water instead of pipes.
5. Instead of washing the floor use a mop.

Importance of Water:

1. Digestion of food takes place in the stomach when food is mixed with water.
2. Important medium for the transportation of food, oxygen and carbon dioxide in the body.
3. Water is used to produce electricity.
4. Water is essential for the germination of seeds.
5. Water helps in maintaining the body temperature.

Excess of water: When it rains or snow, some of the water is retained by soil. Its caused flood. It effects by damage property and endanger the lives of humans and animals. Rapid run-off causes soil erosion.

Lack of water: It is the lack of sufficient available **water** resources to meet **water** needs within a region. It cause drought like condition. It effect by acute water crisis, crop failure, loss of life in all forms due to starvation.

Rainwater Harvesting: Method of collecting rainwater and storing it for use during scarcity. It can be used for several purposes including drinking, washing, gardening, flushing, etc.

- Water vapour gets added to air by evaporation and transpiration.
- The water vapour in the air condenses to form tiny droplets of water, which appear as clouds. Many tiny water droplets come together and fall down as rain, snow or hail.
- Rain, hail and snow replenish water in rivers, lakes, ponds, wells and soil.
- Excessive rains may cause floods while lack of it for long periods may cause droughts.
- The amount of usable water on earth is limited so it needs to be used carefully.

VERY SHORT ANSWER QUESTIONS

1. Look at Fig. 14.1.

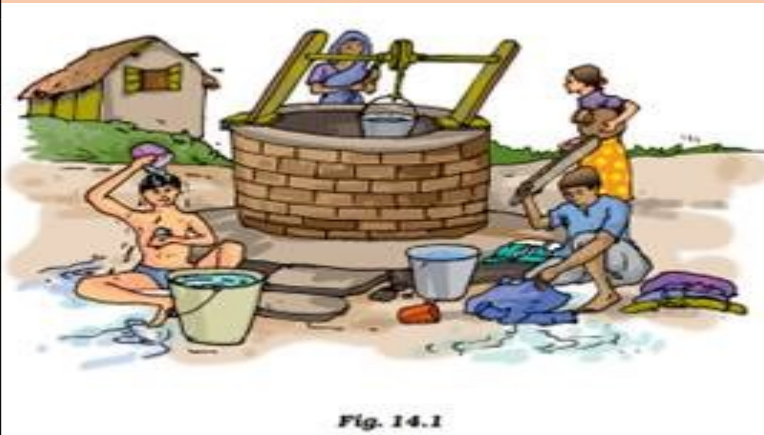


Fig. 14.1

Write down the activities shown in this figure in which water is being used.

Ans. Water is being used for washing clothes, drinking and bathing.

2. Write any two activities which require more than a bucket of water.

Ans. Washing clothes and irrigation require more than two buckets of water.

3. Write any two activities which require less than one bucket of water.

Ans. Brushing teeth and drinking require less than one bucket of water

SHORT ANSWER QUESTIONS

1. Why do wet clothes dried on a clothes line get dry after some time? Explain.

Ans. Wet clothes when dried on a clothes line get dry after sometime due to the evaporation of the water present in wet clothes and their conversion to water vapour.

2. Water kept in sunlight gets heat from the sun and is evaporated. But how does water kept under the shade of a tree also gets evaporated? Explain.

Ans. Water kept under the shade of a tree gets evaporated due to the heating up of the air during daytime due to presence of sun. The hot air provides heat and evaporates the water kept in shade.

3. How do the areas covered with concrete affect the availability of ground water?

Ans. Areas covered with concrete reduces the seepage of rain water into the ground. As water from concrete area flows into the drains thereby reducing the availability of ground water.

4. Why is there a need for conserving water? Give two reasons.

Ans. There is an urgent need to take necessary steps to conserve water even 70% of land is covered with it which is unfit for drinking. Two reasons can be

- a) Increased population
- b) decrease in the level of ground water

5. Fill in the blanks selecting words from the following list

snow, rain, clouds, vapour, evaporation, transpiration.

Water, as _____ goes into the atmosphere by the processes of _____ and _____, forms _____, which on condensation fall in the form of _____ and _____.

Ans. Water, as vapour goes into atmosphere by the processes of evaporation and transpiration, forms clouds which on condensation fall in the form of snow and rain.

LONG ANSWER QUESTIONS

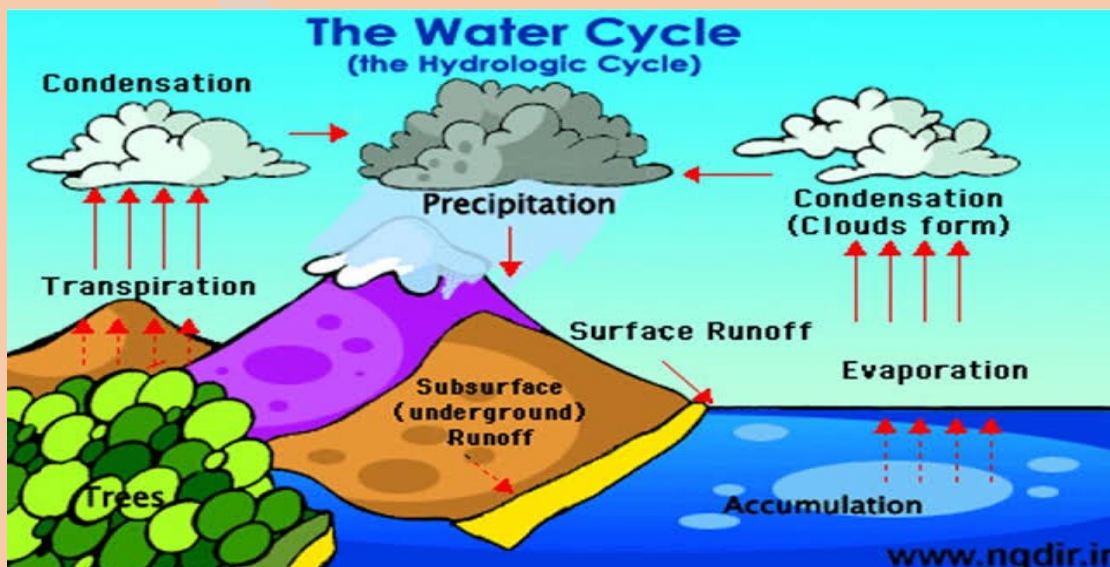
1. Most of the water that falls on the land as rain and snow, sooner or later goes back to a sea or an ocean. Explain how it happens?

Ans. The rain falling on the ground is a source of ground water. When it falls on the earth it gets seeps into ground and portion of it flows into other sources of water bodies like rivers, lake sand wells and then it flow into seas or oceans.

And when snow falls on the surface of the earth in the form of ice, snow or as a glacier. it melts and flows down in the form of rivers, lakes and gets merged with the ocean and seas.

2. Draw a diagram to show how sea water reaches a lake or pond.

Ans.



3. Dissolve two spoons of common salt in half a cup of water. Now if you want to get the salt back, what will you do?

Ans. To get the salt back we can heat the solution so that water can evaporate leaving the crystals of salt back. This can also be done if the solution is kept in sun for few hours. The water will get evaporated and crystals of salt will be left behind.

4. Explain the process of rooftop rain water harvesting with the help of a suitable diagram.

Ans. Rainwater containing soil from the roof is collected from the rooftop and is collected into a storage tank, through pipes. Second step is to filter the stored water. The water can also be transported into a pit in the ground. This then seeps into the soil to recharge or refill the ground water.



TEXTUAL EXERCISE:

Question 1. Fill up the blanks in the following:

- The process of changing of water into its vapour is called _____.
- The process of changing water vapour into water is called _____.
- No rainfall for a year or more may lead to _____ in that region.
- Excessive rains may cause _____.

Answer: (a) The process of changing of water into its vapour is called **evaporation**.
(b) The process of changing water vapour into water is called **condensation**.
(c) No rainfall for a year or more may lead to **drought** in that region.
(d) Excessive rains may cause **flood**.

Question 2. State for each of the following whether it is due to evaporation or condensation:

- Water drops appear on the outer surface of a glass containing cold water.
- Steam rising from wet clothes while they are ironed.
- Fog appearing on a cold winter morning.
- Blackboard dries up after wiping it.
- Steam rising from a hot girdle when water is sprinkled on it.

Answer: (a) Condensation.
(b) Evaporation

- (c) Condensation
- (d) Evaporation
- (e) Evaporation

Question 3. Which of the following statements are “true”?

- (a) Water vapour is present in air only during the monsoon.
- (b) Water evaporates into air from oceans, rivers and lakes but not from the soil.
- (c) The process of water changing into its vapour, is called evaporation.
- (d) The evaporation of water takes place only in sunlight.
- (e) Water vapour condenses to form tiny water droplets of water in the upper layers of air where it is cooler.

Answer: (a) False, (b) False, (c) True, (d) False, (e) True.

Question 4. Suppose you want to dry your school uniform quickly. Would spreading it near an anghiti or heater help? If yes, how?

Answer: Yes, spreading it near an anghiti or heater will surely help as heater and anghiti are source of heat which vaporize the water of the wet clothes and thus help in drying.

Question 5. Take out a cooled bottle of water from refrigerator and keep it on a table. After some time you notice a puddle of water around it. Why?

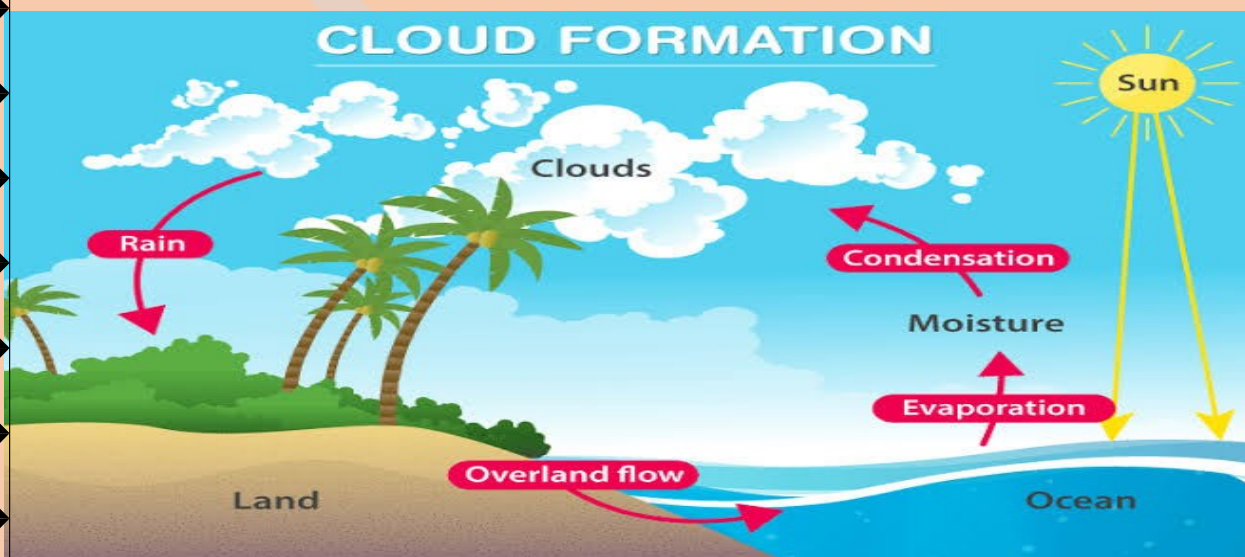
Answer: The puddle of water seen around the cooled bottle of water is due to the condensation effect as the water vapour present in the air around the bottle get condensed after colliding with bottle.

Question 6. To clean their spectacles, people often breathe out on glasses to make them wet. Explain why the glasses become wet?

Answer: When we breathe out, water vapours also come out with exhaled air. These water vapours when come in contact with the glasses of spectacle make them wet.

Question 7. How are clouds formed?

Answer: The process of condensation plays an important role in formation of cloud. As water vapour goes higher from the surface of the earth, it gets cooler. When the air moves up, it gets cooler and cooler. At sufficient heights the air becomes so cool that the water vapour present in it condenses to form tiny water droplets. It is these tiny droplets that remain floating in air and appear to us as clouds.



Question 8. When does a drought occur?

Answer: If it does not rain for one or two years, the soil continues to lose water by evaporation and transpiration. Since, it is not being brought back by rain, the soil becomes dry. The level of water in ponds and wells of the region goes down and some of them may even dry up. The ground water may also become scarce. This may lead to drought.



Chapter – 15 Air Around Us

Key words:

Air: The invisible gaseous substance surrounding the earth, a mixture mainly of oxygen and nitrogen.

- The blanket of air that surrounds the earth is called atmosphere.
- Air is found everywhere. We cannot see air, but we can feel it.
- Air in motion is called wind.
- Air occupies space.
- Air is present in water and soil.
- Air is a mixture of nitrogen, oxygen, carbon dioxide, water vapour and a few other gases. Some dust particles may also be present in it.
- Atmosphere is essential for life on earth.
- Aquatic animals use dissolved air in water for respiration.
- Plants and animals depend on each other for exchange of oxygen and carbon dioxide from air.

Constituent of Air

- *Air contains mostly nitrogen and oxygen. Nitrogen is nearly 78% of the air. Oxygen is nearly 21% of the air. Rest 1% is carbon Dioxide, water vapour, dust particles and some other gases. The composition of gases in air changes from place to place.*

1. **Nitrogen:** Plants need nitrogen to grow.
2. **Oxygen:** Used by all living things to respire and help to burn things.
3. **Carbon dioxide:** Plants and animals consume oxygen and produce carbon dioxide during respiration. It is used by green plants for photosynthesis. It is released on burning.
4. **Water vapour:** Formed due to evaporation of water. Amount of water vapour present in the air is called humidity. Varies from place to place and also in the same place during day and night.

5. Dust and Smoke: Smoke contains a few gases and fine dust particles. It is very harmful. Presence of dust particles in air varies from time to time and from place to place.

Importance of Air

- Air aids burning.
- Air is needed for breathing.
- Plants need air to make food.
- Birds fly in air. Aero planes also go up in the air because of air pressure.
- Moving air is called wind. The wind makes the windmill rotate.
- Air help in quick evaporation of sweat that helps in keeping us cool.

VERY SHORT ANSWER QUESTIONS

1. State whether the following statements are true or false. If false, correct them.

- (a) Plants take in oxygen for respiration.
- (b) Plants release oxygen during the process of making their own food.
- (c) Air helps to move sailing yachts and gliders, but plays no role in the flight of birds and aero planes.
- (d) Air does not occupy any space.

Ans. (a) True (b) True
(c) False : Air also helps in the flight of birds and aero planes.
(d) False : Air occupies space.

2. In a number of musical instruments, air plays an important role. Can you name some such instruments?

Ans. Flute, shehnai, harmonium

3. In the boxes of Column I the letters of some words are jumbled up. Arrange them in proper form in the boxes given in Column II

Column I	Column II
(a) D I L L M W I N	(a) <input type="text"/>
(b) Y N O G X E	(b) <input type="text"/>
(c) M E S K O	(c) <input type="text"/>
(d) T U D S	(d) <input type="text"/>

Ans. (a) WINDMILL
(b) OXYGEN
(c) SMOKE
(d) DUST

4. Make sentences using the given set of words.

- (a) 99%, oxygen, nitrogen, air, together
- (b) Respiration, dissolved, animals, air, aquatic
- (c) Air, wind, motion, called

Ans. (a) Oxygen and nitrogen together make up 99 per cent of the air.
(b) Aquatic animals use dissolved air for respiration.
(c) Air in motion is called wind.

SHORT ANSWER QUESTIONS

1. A list of words is given in a box. Choose the appropriate words from the box to fill up the blanks in the following statements.

Air, oxygen, wind, water vapour, mixture, combination, direction, road, bottles, cylinders.

- (a) The ____ makes the windmill rotate.
- (b) Air is a ____ of various gases.
- (c) A weather cock shows the ____ of the wind in that place.
- (d) Mountaineers carry oxygen ____ with them, while climbing high mountains.

Ans. (a) wind (b) mixture (c) direction (d) cylinders

2. Observe the picture given in Fig. 15.1 carefully and answer the following questions.



Fig. 15.1

- (a) What is policeman wearing to cover his nose and mouth ?
- (b) Why should he cover his nose?
- (c) Can you comment on air quality of the place shown in the Fig.15.1?

Ans. (a) A mask

(b) To save himself from the dirt and the polluted air.

(c) Air quality of the place is not good. This is due to the smoke, dust and gases released by the automobiles along with dust particles present in the air.

3. Garima observed that when she left her tightly capped bottle full of water in the open sunlight, tiny bubbles were formed all around inside the bottle. Help Garima to know why it so happened?

Ans: The tiny bubbles formed are due to the air dissolved in water trying to escape when the temperature is raised because of the heat from the sun.

4. Match the items of Column I with the items of Column II

Column I	Column II
(a) weather cock	(i) gases and fine dust particles

(b) mountaineers	(ii) sailing yacht
(c) fine hair inside the nose	(iii) oxygen cylinders
(d) smoke	(iv) direction of air flow
(e) wind	(v) prevent dust particles

Ans. (a) - (iv)

(b) - (iii)

(c) - (v)

(d) - (i)

(e) - (ii)

LONG ANSWER QUESTIONS

1. Explain the following observations very briefly

(a) A firki does not rotate in a closed area.

(b) The arrow of weather cock points towards a particular direction at a particular moment.

(c) An empty glass in fact is not empty.

(d) Breathing through mouth may harm you.

Ans. (a) Firki is rotated by the moving air. But in a closed room the air is still and hence cannot rotate the firki.

(b) The arrow of weather cock shows the direction of the wind at a particular moment.

(c) It is not empty because at that instant the glass is filled with air.

(d) Breathing through nose helps to reduce the entry of dust particles to some extent by obstructing the dust by the fine hair present inside the nostrils. But mouth has no such mechanism to eliminate the dust. Therefore it can be harmful.

2. Imagine and write what would happen if any of the following gases disappear from the atmosphere

(a) oxygen

(b) nitrogen

(c) carbon dioxide

Ans.a) Oxygen- If oxygen disappears from the atmosphere, then life would not exist on earth. Most living things use oxygen from air to live. Plants use oxygen during photosynthesis, animals use oxygen during respiration, and oxygen is also required during burning. All these will not be possible without oxygen.

b) Nitrogen- Nitrogen is the most abundant gas in the air. All living things need nitrogen to make proteins. Plants require it to stay healthy which is not possible without nitrogen.

c) Carbon Dioxide- Plants require carbon dioxide to make their own food during photosynthesis. If carbon dioxide disappears from the atmosphere then plants cannot make their own food, which will make plants difficult to survive.

3. Paheli kept some water in a beaker for heating. She observed that tiny bubbles appeared before the water started to boil. She boiled the water for about 5 minutes and filled it in a bottle up to the brim and kept the bottle air tight till it cooled down to room temperature.

(a) Why did the tiny bubbles appeared?

(b) Do you think tiny bubbles will appear on heating the water taken out from the bottle? Justify your answer.

Ans. (a) Bubbles appear because the solubility of air decreases when the temperature is raised.

(b) No, tiny bubbles will not appear as there is no dissolved air in this water.

4. On a Sunday morning Paheli's friend visited her home. She wanted to see some flowering plants in the nearby garden. Both of them went to the garden. While returning from the garden they also observed some flowering plants on the road side. But to their surprise they found that the leaves and flowers of these roadside plants were comparatively very dull. Can you help them to know why?

Ans. The roadside plants are not watered regularly and are also exposed to regular dust and soot from the road and passing vehicles which deposited over them and consequently appears dull.

TEXTUAL EXERCISE

Question 1. What is the composition of air?

Answer: Various components of air are:

- (a) Nitrogen - 78.11%
- (b) Oxygen - 20.95%
- (c) Carbon dioxide - 0.03%
- (d) Other gases
- (e) Water vapour
- (f) Dust particles

Question 2. Which gas in the atmosphere is essential for respiration?

Answer: Oxygen gas in the atmosphere is essential for respiration.

Question 3. How will you prove that air support burning?

Answer: Step I: Two shallow containers are taken and burning candles are fitted into it.

Step II: Now, water is filled in the container at two different levels.

Step III: Both the candles are then covered with glass.

Step IV: After sometimes, we observed that the candles having less water in its container lights off.

This happened because the container having more water contains more oxygen and therefore it burnt for more time.

Thus, it is proved that air supports burning.



Question 4. How will you show that air is dissolved in water?

Answer: When a tumbler containing water is heated, tiny bubbles appear on the inner side. These bubbles appear before the water starts boiling. So, these must be air bubbles. This shows that water contain air.

Question 5. Why does a lump of cotton wool shrink in water?

Answer: A lump of cotton wool shrinks in water because the air inside wool cotton is driven out by water. The layers stick together and hence lump shrinks.

Question 6. The layer of air around the earth is known as _____.

Answer: Atmosphere.

Question 7. The component of air used by green plants to make their food, is _____.

Answer: Carbon dioxide.

Question 8. List five activities that are possible due to the presence of air.

Answer: Five activities that are possible due to the presence of air:

- (i) Helps in seed dispersal and pollination.
- (ii) Sailing of ships.
- (iii) Flying of the birds and kites.
- (iv) Gives us oxygen to respire.
- (v) Helps in the rotation of windmill.

Question 9. How do plants and animals help each other in exchange of gases in the atmosphere?

Answer: In photosynthesis, plants take carbon dioxide and give out oxygen. The animals breath in oxygen in respiration and carbon dioxide is given out which is again used by plants for photosynthesis, that is, preparation of food by plants.

This is how plants and animals help each other in the exchange of gases in the atmosphere.

CHAPTER – 16

Garbage in, Garbage out

Key words:

Waste: A material that has no longer any value to the person who is responsible for it.

Type of wastes:

- (i) **Biodegradable wastes:** Wastes which can be broken down through the action of microorganisms into their simple constituents. Example: plant products, organic wastes, domestic refuse and animal wastes.
- (ii) **Non-biodegradable wastes:** Wastes which cannot be disintegrated by action of microorganisms and remains unaffected from decomposition. Example: plastics, glass, metal, scraps, etc.
- (iii) **Plastics:** Many things are made up of plastics like bags, shoes, bottles, pipes, pens, etc. it cannot be converted into less harmful substances by composting.

Management and Disposal of Waste:

- (a) **3R's – Reduce, Reuse, Recycle.** It means the **reduce** waste production, **reuse** of materials and **recycle** and reprocessing of waste materials for making new products.
- (b) **Landfills or Composting:** Converting plant and animal waste including that from kitchen, into manure, is called composting. Low lying open areas to deposit biodegradable waste.
- (c) **Vermi-composting:** Method of preparing compost with the help of red worms. Excreta of the worms make the compost very rich in nutrients.

- Use of two type of dustbins GREEN AN RED. The Green one is for biodegradable waste, while the red garbage bin is for non-biodegradable waste.
- Landfill is an area where the garbage collected from a city or town is dumped. The area is later converted into a park.
- Paper can be recycled to get useful products.
- Plastics cannot be converted into less harmful substances by the process of composting.
- We need to generate less waste and find ways of dealing with the increasing amount of garbage in our surroundings.

VERY SHORT ANSWER QUESTIONS

1. Read the items mentioned in Columns I and II and fill in the related process in the Column III

Column I	Column II	Column III
(a) Organic waste	Earthworms	(i)
(b) Garbage	Dig pit and fill with garbage	(ii)
(c) Old newspaper	Paper bags	(iii)

Ans. (i) vermicomposting

(ii) garbage disposal/landfill

(iii) recycle

2. Correct the definitions of certain terms given below by changing only one word.

(i) **Compost:** Substances converted into manure for use in industries.

(ii) **Landfill:** Garbage buried under water in an area.

(iii) **Recycling:** Reuse of unused material in the same or another form.

Ans. (i) change industries by fields or agricultural fields

(ii) change water and write soil

(iii) change unused by used

3. Provide the suitable term that expresses the meaning of each of the following statements.

(a) Greeting cards made from newspaper.

(b) Contents of the waste bins.

(c) Worms converting certain kinds of waste into manure.

(d) An area where a lot of garbage is collected, spread out and covered with soil.

Ans. (a) Recycling

(b) Garbage

(c) Vermicomposting

(d) Landfill

SHORT ANSWER QUESTIONS

1. To what use can you put the following kinds of garbage and how?

(i) rotting smelly garbage

(ii) dry leaves collected in a garbage

(iii) old newspapers

- Ans.** (i) Convert into compost.
(ii) Use as manure.
(iii) Recycle them and make paper bags or Papier-mâché for handicrafts.

2. Paheli was writing a letter to her friend. She crumpled and threw the first draft of her letter on the floor as it had become untidy. Similarly, she crumpled and threw 6 more papers on the ground. In the end, she picked them up and put them in a polythene bag and threw it on the road outside her house. Do you think Paheli's action were responsible? What would you have done if you were in her place?

Ans. She can use the paper for doing rough work or convert it into paper pulp for making many handicraft items.

3. Read the poem written below and then answer the questions from the information gathered from the book or elsewhere.

Blue and Green

Two bins, you mean?

Yes, they are there

to throw your waste.

But not in a hurry

Nor in a haste.

Select from waste, sieve if seems muddy

Separate all items and when they are ready

Place in a blue bin, or one that is green

For a voyage to the landfill, or for composting.

(i) Name the two kinds of waste that need to be separated from each other in two different waste bins.

(ii) Name two items of waste each that need to be sent to a (a) landfill, (b) for composting.

Ans. (i) The waste that are biodegradable waste and can be decomposed by bacteria or earthworms from non-biodegradable wastes that cannot be degraded or decomposed..

(ii) (a) any metal items

(ii) (b) Kitchen waste, animal dung

4. Beera, a farmer would clear his field every day, and burn dry leaves fallen on the ground. After some time he found that those living in huts near his field were suffering from cough and breathing problems.

(i) Can you explain why?

(ii) Also suggest an environment friendly way to dispose the dry leaves.

Ans. (i) Fumes and gases released by the burning of materials causes cough and breathing problem

(ii) Dry leaves can be converted to useful compost.

LONG ANSWER QUESTIONS

1. Put a tick (√) against the garbage items given in Table which could be converted into manure. Put a cross (×) against the others.

Garbage Items	Make manure or not
(i) Egg shells	
(ii) Straw	
(iii) Dry flowers	
(iv) Pebbles	
(v) Broken pieces of glass	
(vi) Nails and screws	
(vii) Plastic bangles	
(viii) Left over food	
(ix) Steel broken vessel	
(x) Dead animals	

Ans.

Garbage Items	Make manure or not
(i) Egg shells	√
(ii) Straw	√
(iii) Dry flowers	√
(iv) Pebbles	(×)
(v) Broken pieces of glass	(×)
(vi) Nails and screws	(×)
(vii) Plastic bangles	(×)
(viii) Left over food	√
(ix) Steel broken vessel	(×)
(x) Dead animals	√

2. Given below are steps in vermicomposting and each step has been given an alphabet. Rearrange the steps in the correct sequence and write the alphabets on the chart provided. One step is done for you.

- F : Dig a pit in a suitable place in your garden.
- C : Spread sand on the floor of the pit.
- E : Add vegetable peels and fruits waste in the pit.
- A : Sprinkle water to keep it moist.
- D : Place red worms in the pit.
- B : Cover with a gunny bag or grass.

Step	Alphabet
1	F
2	
3	
4	
5	
6	



Ans.

Step	Alphabet
1	F
2	C
3	E
4	B
5	A
6	D

3. Write 3 sentences on what comes to your mind when you chance to see the following.

- (a) A rag picker.
- (b) A cow eating a polythene bag.
- (c) Foul odour emanating from garbage at the entrance of your house.

Ans. (a) He must be very poor and facing poverty hence needs to remove the garbage generated by others. This job is quite risky for him because he is getting exposed to harmful substances and most likely to infect by many diseases caused by germs and harmful microorganisms.

(b) Plastic is non-biodegradable and hence very harmful for animals. If cow ingest a plastic it will choke their digestive system which lead to slow and painful death.

(c) Large quantity of garbage is generated which start rotting and cause air pollution. it will soon remove from entrance of the home and disposed carefully .

4. Beautiful hand crafted articles like boxes and toys are made of paper pulp in our country. Can you explain how paper pulp which is made from paper can be used to make hard boxes and other articles?

Ans. The paper pulp can be solidified by using plaster of Paris or a layer of clay over the layer of paper pulp. The structure of paper pulp can also be covered by a layer of cement to solidify it. This is also known as paper-machine, its a paste of paper pulp and clay to form toys and boxes.

5. Recently, a ban on plastic bags has been imposed in many places? Is the ban justified? Give reasons in three sentences.

Ans. I strongly believe plastic bags must be banned as,

1. They are often used to fill garbage in them and are thrown away in the open. It proves fatal for the stray animals which consume this.
2. Plastic bags thrown carelessly end up in the drains and finally choking them.
3. They give out harmful gases on heating or burning which causes respiratory problems and also result in air pollution. Therefore, it must be banned. Instead of using plastic bags, people can use cotton, paper or jute bags.

6. Why should we not burn plastic items?

Ans. Burning of plastic releases harmful gases into the atmosphere leading to air pollution and causing diseases. The burning process is not that easy and the burnt particles may be eaten up by the animals which may choke their system and cause their death. The burnt particles are toxic and may lead to soil pollution.

7. Answer the following questions in one or two words or sentences:

(a) Why should we prefer to use paper bags rather than polythene bags?

(b) Who, out of the following should properly dispose of the garbage - father, mother, elder brother, younger sister?

(c) Which one out of beetles, roundworm and earthworm are used for vermicomposting and why?

Ans. (a) Paper can be recycled and reused while polythene bags are non-biodegradable.

(b) Every member should do it.

(c) Earthworms. They convert waste from plants and animals or their product into compost and therefore known as farmers friend.

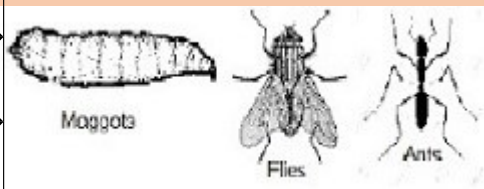
TEXTUAL EXERCISE

Question 1. (a) What kind of garbage is not converted into compost by the earthworms?

(b) Have you seen any other organism besides earthworm, in your pit? If yes, try to find out their names. Draw pictures of these.

Answer: (a) Plastic bags, tins, bottles, glass, aluminium foils, broken bangles.

(b) Yes, these organisms include maggots, flies, cockroaches etc.



Question 2. Discuss:

(a) Is garbage disposal the responsibility only of the government?

(b) Is it possible to reduce the problems relating to disposal of garbage?

Answer: (a) No, garbage disposal is not only the responsibility of the government. It is sole responsibility of both government and the people. People should not litter at public places. They should also take care for the effective disposal of the waste produced at home, schools, hospitals etc.

(b) Yes, it is possible to reduce the problems relating to disposal of garbage by taking following measures:

- People should concern about generating less waste products and creating awareness among them.
- Each and every product should be used efficiently.
- Biodegradable and non biodegradable wastes should be separated.
- Waste products or garbage must be recycled and setting up centre for the treatment of them.

Question 3.

(a) What do you do with the leftover food at home?

(b) If you and your friends are given the choice of eating in a plastic plate or a banana leaf platter at a party, which one would you prefer and why?

Answer: (a) We usually throw the left over food outside our homes. But kitchen wastes are biodegradable, so left over food at home should be dumped into compost pits so that it gets converted into manure after some days.

(b) I will prefer to eat in banana leaf because it is a biodegradable product and environment friendly and can be decomposed.

Question 4.

(a) Collect pieces of different kinds of paper. Find out which of these can be recycled.

(b) With the help of a lens look at the pieces of paper you collected for the above question. Do you see any difference in the material of recycled paper and a new sheet of paper?

Answer: (a) Papers without having plastic coating on it can be recycled.

(b) The recycled is slightly yellowish in colour than the new sheet of paper. Recycled paper is also rough and of low quality than new sheet of paper.

Question 5.

(a) Collect different kinds of packaging material. What was the purpose of which each one was used? Discuss in groups.

(b) Give an example in which packaging could have been reduced?

(c) Write a story on how packaging increases the amount of garbage.

Answer:

(a)

Paper packet	light food items.
Card board	Crockery
Plastic covers	clothes, dresses.
Glass covers	show pieces.
Wooden boxes	delicate items.

(b) If people started carrying their own carry bags for buying groceries and vegetables and fruits then there will be no need for packing those materials by using plastics and thus the packaging could have been reduced.

(c) Packaging increase the amount of garbage as the it is quite useless ones the product is delivered or been utilised. These useless packaging materials are thrown away and just add loads to the garbage. Many packaging materials can't even be reused. Some of them are made of plastics and thus a non biodegradable item which add hazards to the environment.

Question 6. Do you think it is a better to use compost instead of chemical fertilizers? Why?

Answer: Yes, i think it is better to use compost instead of chemical fertilizers because:

- (i) It is environment friendly and adds natural fertility to the soil.
- (ii) It doesn't have adverse effect on nature and creates no pollution.
- (iii) The food items grown are also healthy and do not contains any chemicals.
- (iv) It is cheaper than the chemical fertilizer.
- (v) Soil will never loss its fertility if we use compost.

Thank You