

3. AIR WE BREATHE

Class: IV

Subject: Science

I. Choose the correct answer.

- Air is a _____.
(a) Mixture (b) Compound (c) Complex
- Percentage of Oxygen in air is about ____%.
(a) 21 (b) 78 (c) 1
- Root nodules of some plants contain _____.
(a) Oxygen (b) Nitrogen (c) Neon
- The major cause of air pollution is _____.
(a) Waste (b) Smoke (c) Water vapour

II. Who am I?

- I am a mixture of gases. **Air**
- I give you oxygen. **Plants**
- I am not the supporter of burning. **Nitrogen**
- You can help me to decrease pollution by riding on me. **Bicycle**

III. Write 'True' or 'False'.

- Plants need nitrogen for their growth. **True**
- Air is made up of oxygen only. **False**
- The gas used for burning things is Argon. **False**
- Carbonated drinks are bad to health. **True**

IV. Match the following.

- Nitrogen - 78%
- Balloon - Air
- Smog - Smoke and fog
- Lung cancer - Air pollution

V. Fill in the blanks.

- Air is a mixture of many Gases.
- Amount of carbon dioxide in the air is 0.03%.
- We inhale Oxygen gas.
- Carbon-di-oxide is used in fire extinguishers

VI. Answer the following questions in brief.

1. What is the importance of air in our daily life?

- Oxygen present in air is needed for respiration.
- We can speak and hear the sound only when there is air around.
- Air helps in the dispersal of seeds for plant reproduction.

4. Monsoon and rain occurs due to the wind action.
5. Air regulates the atmospheric temperature.

2. What are the components of air?

Components of air

- Nitrogen
- Argon
- Carbon dioxide
- Other gases

3. What are the adverse effects of air pollution?

- Global warming
- Formation of smog
- Formation of acid rain
- Aerosol formation
- Depletion of ozone

4. List uses of oxygen.

1. All living things use oxygen for breathing.
2. Oxygen is essential for burning.
3. Oxygen cylinders are used in hospitals to enable the patients to breathe when they cannot breathe normally.
4. Oxygen is used in gas welding.

VII. Give short answers.

1. How can we reduce air pollution?

Air pollution can be reduced by the following steps.

1. Alternative source of energy (E.g. Solar energy) should be used.
2. Air filters should be used to prevent harmful gases mixing with air.
3. Smoke emission test and certification of motor vehicles must be enforced.
4. More trees should be planted to absorb carbon dioxide.

2. What are the diseases caused due to air pollution?

Air pollution has bad impact on human health. When the pollutants increase in air, they cause irritation in the eyes, nose and throat. Air pollution can also produce wheezing, coughing and breathing problems in humans.

Some of the major effects of air pollution on human beings are:

1. Respiratory diseases. E.g. Flu, Tuberculosis

2. Cardiovascular damage.
3. Fatigue, headaches and anxiety.
4. Nervous system damage

3. List out the uses of carbon dioxide.

1. Carbon dioxide helps plants in photosynthesis.
2. It is used in fire extinguishers.
3. It is used in refrigerators as dry ice for cooling purposes.
4. It is used to make plastics and polymers.

TEXT BOOK ACTIVITES

ACTIVITY :1 (pg no: 88)

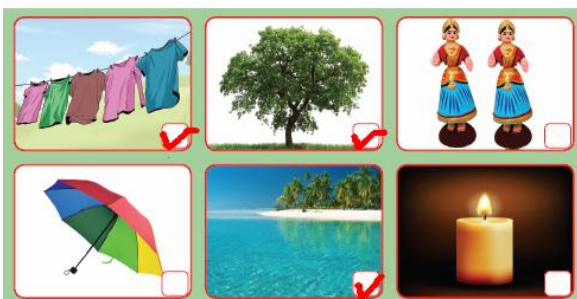
1. Take a squeezable bottle. Make a hole on the lid and close the bottle tightly. Bring the bottle near your face and press the bottle. What do you feel?

Air will come rushing out of the bottle.

ACTIVITY :2 (pg no : 89)

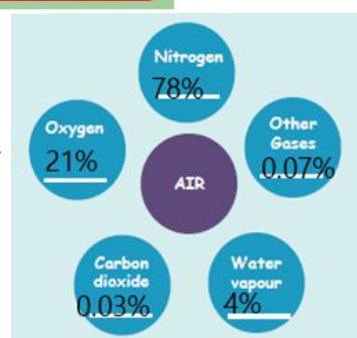


ACTIVITY :3 (Pg no : 90)



ACTIVITY :4 (Pg no: 91)

Write the percentage of the gases present in air.



ACTIVITY :5 (Pg no: 91)

1. You might have seen some huge colorful balloons flying high in malls. Those balloons are filled with nitrogen gas. Write the reason for filling nitrogen gas in balloons.

The amount of nitrogen present in air is about 78% so it will float upwards and it is also non-flammable gas.

ACTIVITY :6 (Pg no: 93)

1. Classify the following.

(Dog, cat, coconut tree, monkey, brinjal plant, papaya plant)

Things which give out oxygen	Things which give out carbon dioxide
Brinjal plant	Dog
Papaya plant	Cat
Coconut tree	Monkey

ACTIVITY :7 (Pg no: 95)

Tick the causes of global warming.



ACTIVITY :8 (Pg no: 96)

1. Write slogans on harmful effects of air pollution in a chart and stick it on the display board.



1. Don't be mean, Keep air clean
2. Spread solution, not Pollution
3. Give Trees a lot of care, so you can breath fresh air
4. Say loudly 'No' to air pollution.