



Properties of Air

A. Choose the Correct Answer:

1. Which gas is the most abundant in the air?

- A) Oxygen
- B) Nitrogen
- C) Carbon dioxide
- D) Hydrogen

2. What property of air allows us to fill balloons and footballs?

- A) Air has no mass
- B) Air is weightless
- C) Air occupies space and has pressure
- D) Air does not expand

3. Which of the following is a property of air?

- A) It is solid
- B) It has no weight
- C) It is colorless and odorless
- D) It does not occupy space

B. Fill in the Blanks:

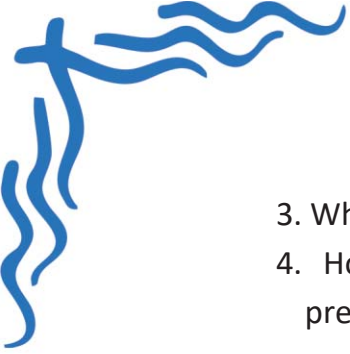
1. Air is a mixture of different _____.
2. The gas in the air that humans need to breathe is called _____.
3. Air exerts _____, which can be felt when we inflate a balloon.

C. Case Study:

- Rohan and his friends were playing with a football in the park. Suddenly, Rohan noticed that his football had become soft and was not bouncing well. His friend Sameer explained that it could be because the air inside the ball had leaked out. They decided to pump air back into the football, and it became firm again.
- Later, Rohan conducted a small experiment at home. He took an empty plastic bottle, closed its lid tightly, and tried to squeeze it. He found that it was difficult to squeeze. Then, he opened the lid and tried again, and the bottle was easy to press.

Case Study Questions:

1. Why did the football become soft when air leaked out?
2. What happened when Rohan closed the lid of the plastic bottle?



3. What property of air did Rohan observe in his experiment?
4. How does this experiment prove that air occupies space and exerts pressure?

D. Short Answer Questions:

1. What is air made up of?
2. How do plants and animals depend on air for survival?
3. How does air pressure help in everyday life?

E. Long Answer Questions:

1. Explain the different properties of air with examples.
2. Describe how air pressure is useful in activities like flying an airplane and filling a balloon.
3. How can we keep the air clean and reduce air pollution?