

Exercise Questions

Page number – 153-154

1. What is the composition of air?**Solution:**

Air comprises of water vapor, Oxygen, Nitrogen, Carbon dioxide, dust and smoke.

2. Which gas in the atmosphere is essential for respiration?**Solution:**

Oxygen in the atmosphere is essential for respiration.

3. How will you prove that air supports burning?**Solution:**

Take a candle and place it in a tub, light the candle and fill the tub with water. The candle starts growing after some time. Now cover the candle with an inverted glass. You will find that the candle blows out after burning for some time, and the water level inside the inverted glass rises to some extent.

The component oxygen of air inside the glass is used up in burning. Therefore, water occupies that space. This shows that air supports burning.

4. How will you show that air is dissolved in water?**Solution:**

Heat the tumbler filled with water. Before they start boiling bubbles occur, these bubbles are due to air present in water. This experiment concludes air is present in the water.

5. Why does a lump of cotton wool shrink in water?**Solution:**

The lump of cotton wool shrink in water because the air inside the cotton lumps are replaced by water which makes the layer stick together.

6. The layer of air around the earth is known as _____.**Solution:**

The layer of air around the earth is known as the atmosphere.

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

Solution:

The component of air used by green plants to make their food is **carbon dioxide**.

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

Solution:

Activities that are possible due to air are:

- i) Photosynthesis
- ii) Cloud formation
- iii) Respiration
- iv) Transpiration
- v) Winnowing

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

Solution:

Plants take carbon dioxide to give out oxygen. This oxygen is used by animals for respiration to expel out carbon dioxide. This carbon dioxide is used by plants to prepare food. This way, plants and animals help each other in the exchange of gases in the atmosphere