

## EXP-5 Air contains oxygen and Nitrogen.

Aim of the experiment - To show that air contains oxygen (an active part) and nitrogen (an inactive part).

Apparatus required - A shallow container, some water, a candle, an empty jar and a match box.

Experiment - Fix a candle in the middle of the container. Fill the container with some water. Cover the candle with an empty jar and mark the level of water inside the jar. Now lift the jar and light the candle and cover it with the jar again.

Observation - We have noticed that the candle continues to burn for sometime and then get extinguished. The level of water rises slightly i.e. upto  $\frac{1}{5}$ th part of the jar containing air.

Conclusion - The part where the water level rises slightly is active air i.e. oxygen which helps the candle to burn when it is used up candle stop burning. The  $\frac{4}{5}$ th part of air still present in the jar is inactive air that does not support burning and it is nitrogen.

## Ex-6 To show that air contains carbon dioxide.

Experiment Take a test tube fitted with a two-bore rubber cork, fit a long bent tube through one hole and fit a short bent tube through the other hole. Take



the cork and pour some freshly prepared lime water into the test tube. Fit the cork again. Make sure that the long bent tube is immersed in lime water while the short one remains suspended in air.

Blow air by an air pump through the long tube.

Observation - We observe that the air blown through lime water turns it milky.

Conclusion - Carbon dioxide that is present in the air reacts with lime water and turns it milky.

This shows that air contains Carbon dioxide.

