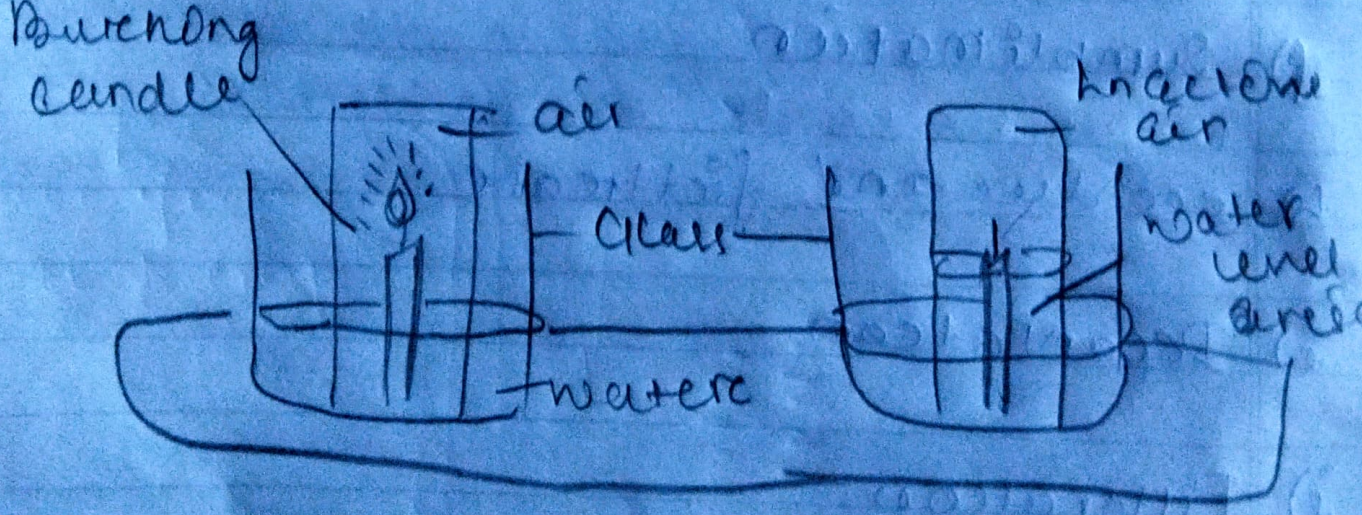
Activity - 5

To show that air contains oxygen (an active part) and nitrogen (an inactive part)

Fix a candle on the candle of a shallow container. Fill the container with some water. Cover the candle with an empty jar and mark the level the ~~candle~~ water inside the jar. Now left the jar and light and candle and cover it with the jar again.



Observe carefully. Does the candle continue to burn or goes off? Does the level of water inside and jar remains same?

You will notice that the candle continues to burn for sometime and gets extinguished. The water level rises slightly, i.e. upto 1/5th part of the jar containing air. The part is active air i.e. oxygen which helps the candle to burn. When is used up, candle stops burning. The 4/5th part of air still present in the jar is inactive air that doesn't support burning, and it is nitrogen.

Activity-6

TO show that air contains carbon dioxide

Take a test tube fitted with a two hole rubber cork. Fit a long bent tube through one hole and fit a short bent tube through the other hole. Take out the cork and pour some freshly prepared lime water into the test tube. Fit the cork again. Make sure that

Next the long bent tube is immersed in the lime water while the short one remains suspended in air.

Blow air by by an air pump through the long tube. You will observe that the air blown through lime water turns it milky.

Why does lime water turn milky?

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