

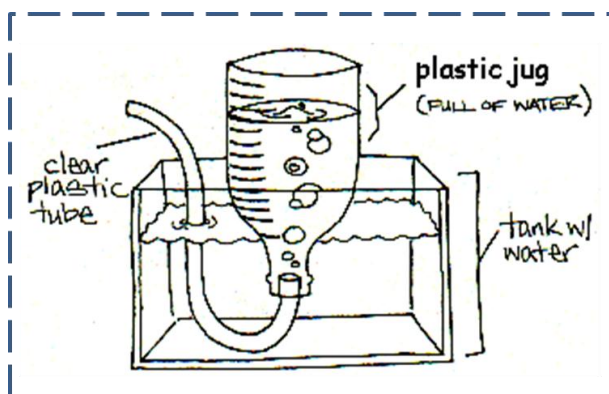
## Activity-27: How much air in your breath

**Aim:** What is the volume of the air we breathe in and breathe out?

**Requirements:** A large measuring cylinder preferably 2 litres in capacity. Flexible plastic tubing. A large tub of water is necessary.

### Procedure:

Fill the cylinder with water by immersing in the tub and place it in the vertical position without introducing any air bubbles in it. Ask your friend to hold it upright. Now take a deep breath, shut your nose with your fingers and blow into the tubing slowly till you can no longer breathe out any air. Repeat 3 times. Both girls and boys should participate.



Tabulate your results as follows:

Person/male/female	Male-volume of air in cc/drop in the height of the water level (mm)	Female-volume of air in cc/drop in the height of the water level (mm)
Person-1		
Person-2		
Person-3		
...		
Average		

### Observation:

Now think of the following questions and try answering them with your observation:

Do you think there is still some air left in your lungs after you breathe out you completely?

Do you think that volume of the air you breathe in and breath out are the same?

What is the volume of the maximum air you can expel from one lung?

What you measured is the maximum volume of the expelled air. Does it differ between males and females of the same age, weight and height? Do you think that a person who can run faster or run longer can expel more volume of air than a person who cannot at rest? Do you think tall people can expel more volume of air than short people?