

## Activity-25: How many breaths in a minute

### Aim:

How many times a person breathe in a minute?

### Procedure:

Ask you friend to take a stop clock or mobile phone stop clock. Ask him/her to place her finger near your nostril and start the stop clock. Ask her to start counting the number of breaths on her finger in a minute. Repeat the experiment 3 times and take an average of it.

### Modifications:

Perform this experiment on both boys and girls of a particular age. Repeat this experiment with people of different ages: 25, 35, 45, 55, 65 years of age, if possible. Go meet your relatives generously. Repeat the experiment with people of different heights and weights if possible. Repeat this experiment after running for some time. Repeat this experiment immediately after waking from a good sleep.

### Tabulate the results as follows:

Age- ; Weight: ; Height: ; during resting in a single position

Person/male/female	Male-breaths per minute	Female-breaths per minute
Person-1		
Person-2		
Person-3		
...		
Average		

Age- ; Weight: ; Height: ; after running or physical exercise

Person/male/female	Male-breaths per minute	Female-breaths per minute
Person-1		
Person-2		
Person-3		
...		
Average:		

**Observation:**

Do you observe differences in the breath count in males and females, during resting and after physical exercise? If so, what are the differences due to? Do you observe differences as the person ages? Are there differences due to a person's height or weight?

How many times does a person's heart beat? If possible can you find any relation between breath count rate and heart beat rate?

Do we breathe in and breathe out the same number of times in a minute?

**Concepts covered:**

Our body uses the oxygen in the air we breathe. This oxygen is used for the energy producing process called Respiration. Respiration occurs in all body cell. The more work these cell need to do, more is the oxygen necessary. Thus we breathe more number of times during heavy work.