**BREATHING RATES EXPERIMENT**

**AIM:** To find out what effect exercise has on the rate of breathing.

**WHAT YOU NEED TO KNOW:**

**Gas exchange** happens inside the body, in your lungs. **Breathing** is what you do to get the air in into your lungs and out again. The amount of air used in breathing depends on two things, the rate of breathing and the amount of air in each breath.

**NUMBER OF BREATHS PER MINUTE**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ACTIVITY** | **1** | **2** | **3** | **Average** |
| **RESTING** |  |  |  |  |
| **AFTER EXCERCISE** |  |  |  |  |
| **READING ALOUD** |  |  |  |  |

1. Count the number of breaths you take in a minute while sitting quietly. Repeat this 3 times. Record the results in your table.
2. Go outside and run around for 5 minutes as soon as you stop exercising count the number of breaths you take in 1 minute. Repeat this 3 times. Record the results in your table.
3. You will need to pair up for this bit. Read from your exercise book for 1 minute. You partner will watch closely and record the number of breaths you take as you read. Repeat this three times and record in your table.
4. Calculations: Work out an average number of breaths for each activity.

Remember to calculate an average add the three trials for each activity together and divide by three.

1. Record these averages in your table.
2. Answer the following questions:
   * Which activity increased your breathing rate? Why?
   * Which activities decreased your breathing rate? Why?
   * Compare your breathing rates with other members of the class – Why do you think they vary?

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