**Table of results**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Resting (1 minute) | Exercise (1 minute) | Resting (1 minute) |
| Pulse rate  | 58 | 74 | 64 |
| Pulse rate | 62 | 76 | 66 |
| Average | 60 beats per minute | 75 beats per minute | 65 beats per minute |
| Breathing rate | 14 | 31 | 21 |
| Breathing rate | 16 | 29 | 19 |
| Average | 15 breaths per minute | 30 breaths per minute | 20 breaths per minute |

**Conclusion**

I conclude that the greater rate of movement, from sitting to a brisk walk, the faster the pulse rate and the quicker the breathing rate. I can support this statement with my results because the average pulse rate while sitting was 60bpm compared to when walking (increasing the rate of movement) the average pulse rate was 75 bpm, increasing by 15bpm. The average breathing rate while resting was 15bpm compared to 30bpm when walking (increasing the rate of movement) showing an increase of 15 bpm.

I made an accurate prediction that the pulse rate and breathing rate will increase when we change the movement from sitting (resting) to a brisk walk (increasing the rate of movement).

The reason why your heart beats more quickly is because your muscles are working harder and need more oxygen to keep going. The increased pulse rate means increasing the rate of the blood flowing around the body. Your heart speeds up to pump blood containing extra water, food and oxygen to the muscles, breathing speeds up to get more oxygen into your lungs then into your blood stream to your heart. At the same time the lungs get rid of waste carbon dioxide picked up by the blood, transported to the heart and then to the lungs to be breathed out. When you are resting your muscles need less oxygen so your heart rate and breathing slow down.

The limitations to my investigation were that we found it hard to accurately read our pulse and breathing rates. This could mean that our results are not completely accurate.