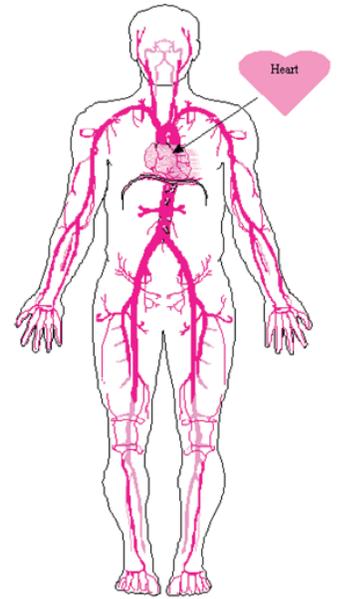


Math and the Human Body

Activity 5 - What is Your Heart Rate?

The circulatory system is made up of the heart, arteries, veins and blood. Your heart is a muscular organ that pumps blood around your body. When your heart contracts (pumps), it forces blood into the arteries (tubes that carry blood from your heart to all parts of the body). Each time the heart beats, the artery walls expand and contract, moving blood around your body, and producing one pulse beat. Your heart rate is how many pulse beats there are in one minute. Your heart rate increases when you exercise, just like your breathing rate. Then after exercise, your heart rate decreases again. Why does this happen? It is because your body needs more oxygen. Your heart pumps blood. The blood carries oxygen and nutrients to all parts of the body. Oxygen and nutrients combine to make energy. When you exercise, your body needs more energy. That is why we breathe more and our heart pumps faster.



Activity Instructions:

Place three fingers (do not use your thumb) right under your ear and slide them down until you reach the side of your throat, under your chin. You should be able to feel your pulse.

Find your resting heart rate by sitting and counting your pulse for ten seconds. Then multiply the number of beats by six. Record your result in the table provided.

1. Exercise for five minutes - run, hop, jump or dance to a favourite song.
2. Immediately after exercising, find your heart rate by counting your pulse for 10 seconds. Then multiply this number by six. Record your result.
3. After two minutes of rest, measure your heart rate. Record your result.
4. Three minutes later measure your heart rate again and record your result.
5. Make a bar graph of the information.
6. What are your observations?

Can you believe THIS is math?

Math and the Human Body

Activity 5 - What is Your Heart Rate? - *continued*

Heart Rate Results

Time	Heart Rate (Number of Beats per Minute)
Resting Heart Rate	
After Five Minutes of Exercise	
After Two Minutes of Rest	
After Five Minutes of Rest	

Heart Rate

270				
260				
250				
240				
230				
220				
210				
200				
190				
180				
170				
160				
150				
140				
130				
120				
110				
100				
90				
80				
70				
60				
50				
40				
30				
Time	Reading	After Exercise	After Two Minutes of Rest	After Five Minutes of Rest

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