

Pre-Show Activity: Exercise is Important

There are many different types of exercise. Exercise can be anything that is actively done: sports, dancing, playing tag... etc.

The heart pumps blood throughout the body and blood contains oxygen, which the body needs to function correctly, and nutrients which are obtained from the food that we eat. Regular exercise makes the body pump blood faster which also helps the heart to get stronger and pump blood more easily.

Activity Objective: Students will find out what their heart rate is before and after exercise. Then, they will calculate their target heart rate to see how healthy they are.

This activity requires students to work in pairs.

Materials per group

- clocks/watches/stopwatches
- indoor or outdoor area large enough to exercise in

To Try with Students

- **You can copy the instructions on the next page, but it is best to explain the instructions to your students and perform it as a class.**



Check it out online:

<http://www.californiasciencecenter.org/FunLab/DoItYourself/Exercise/Exercise.php>

Includes a stopwatch!

Activity 5: Exercise is Important

What to Do:

1. Make sure you have rested for the past few minutes - not running around. Blood pumps through the **arteries** on your body and can be felt on your wrist, neck, and over your heart. See which of those you can feel your heart beat the best and put two (2) fingers on it.
2. Have your partner use a clock to count down for one minute and see how many beats you have in that time.
3. Write down how many beats you had. That's your **resting heart rate**. If you exercised, do you think that number would go up or down? Why do you think so? Let's find out!
4. Exercise for five minutes. Your partner can watch the time. You can do sit-ups, push-ups, run in place, do jumping jacks, and other exercises you like to do.
5. What is your heart beat rate now? Use your two (2) fingers to count your heart beats for a minute like you did before. Write this number down. This is your **moderate activity heart rate**. Is it higher or lower than your resting heart rate?
6. Exercise for five more minutes with your partner watching the time.
7. Like before, use your two (2) fingers to count your heart beats for a minute. Write this number down. This is your **high activity heart rate**. Is this number higher or lower than the other two heart rates?
8. Switch places with your partner so that now he or she is exercising and you are watching the clock time.
9. Time to compare. If you are younger than ten (10) years old, your resting heart rate was probably between 70 and 120 beats per minute. If you are older, your resting heart rate was probably near the lower end of that range. Heart rate decreases as you get older. Compare this number with your partner, then compare with your class. Your moderate and high activity heart rates were probably between 100 and 150 beats. Compare these numbers with your partner and class too.

Exercise is a very important part of life. At least 20 minutes a day needed is recommended! If your heart beats were way off, you might want to exercise more and eat healthy.

Arteries: blood vessels that carry blood away from the heart to the cells, tissues, and organs of the body.

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Activity 3: Exercise is Important

Data Worksheet

Resting Heart Rate

You

Your Partner



Will this number go up or down with exercise? Why?

Moderate Activity Heart Rate

You

Your Partner



Is this number higher or lower than your resting heart rate?

High Activity Heart Rate

You

Your Partner



Is this number higher or lower than your resting and moderate activity heart rates?

Your resting heart rate was probably between 70 and 120 beats per minute. Your moderate and high activity heart rates were probably between 100 and 150 beats.

What are the heart rates of your class mates?