



Project Exploration creates transformative learning opportunities for youth underrepresented in the sciences –particularly students of color and girls – by equipping them with the skills, practices, and mindset needed for a lifelong pursuit of learning. STEM@Home makes activities around science, technology, engineering, and math accessible and fun to do at home. This STEMbook activity, resources, and more are available at [www.projectexploration.org/stemathome](http://www.projectexploration.org/stemathome).

## In this activity, you will:

Learn how the heart works and figure out your heart rate!



## Supplies Required:

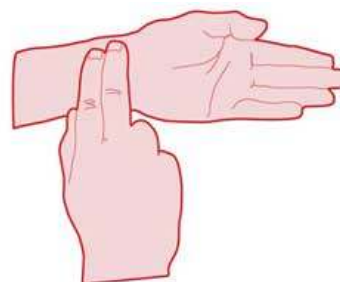
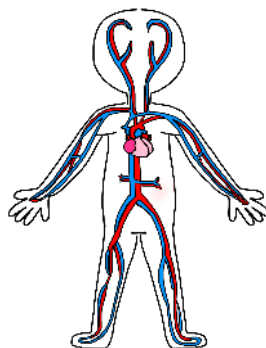
Pen and paper  
Timer

## Video

How to measure your heart rate: <https://tinyurl.com/y9ne9me2>

## Overview

The heart is a muscle in your chest that pumps blood to the rest of your body. The heart pumps blood because the rest of your body needs the nutrients in the blood in order to work properly. The diagram on the left shows you how the heart is connected to the rest of the body by blood vessels. The heart can pump faster or slower depending on how old you are, what you're doing, and what is going on around you. Your heart rate is how fast your heart is pumping. You can check your heart rate by placing your right index and middle finger on your left inner wrist, like in the diagram on the right. Move your fingers around so you can be sure to feel your pulse (your heart pumping)! Count how many times you feel it pump with a timer on sixty seconds.



## Instructions

1. Using the directions on the previous page, take your pulse and write down your heart rate for when you're resting.
2. Do a physical activity! Play basketball, run around, do some pushups. Stay active for at least five minutes.
3. Take your heart rate again and write it down. Is it higher or lower than your resting heart rate? Higher because your body needs blood in order to stay active.
4. Now rest for another 10 minutes, or at least double the time you were active for.
5. Take your heart rate again. You should see it go back down to the resting heart rate!

## Additional Resources

1. What is a healthy heart rate? <https://tinyurl.com/y7r5vun2>
2. Workout video for kids: <https://tinyurl.com/y5vfqr8y>

## Share It Out

**Share on social media:** What's your heart rate doing other activities? Take your heart rate while playing an exciting video game or while listening to peaceful music. Why is your heart rate higher or lower during these times? Share your heart rate with friends and ask them to share theirs.

Use the hashtags:

#HeartRateMonitor  
#ProjectExploration  
#StemAtHome

**Share via PE's website:** Students who complete STEM@home activities and share what they learned with the PE team via our website will earn points which can be traded in for cash prizes at the Explore Store. Your project number is 309. Learn more at [www.projectexploration.org/explore-store](http://www.projectexploration.org/explore-store)

### Join PE's character contest!

Design a STEM character who will lead kids through activities and be featured on our website and in our STEMbooks. Cash prizes will be awarded to the top 3 finalists.

Learn more at:

[www.projectexploration.org/character-contest](http://www.projectexploration.org/character-contest)



Call or text us for help: 312-772-6634

[www.projectexploration.org](http://www.projectexploration.org)