

Heartbeat

Introduction: Making your heart beat faster by exercising is good for your heart, but how do you know that your heart is beating faster? Over 170 years ago, a man named Laennec invented an instrument called the stethoscope to listen to the heart. It was a wooden tube about 1 inch in diameter and about 10 inches long.

Grade Level and Subject: Third grade Math, Science, Health

TEKS: Math – 3B (*STAAR Readiness Standard), 16A , 17A
Science – 2B, 2C, 2D, 3E
Health – 4B

Materials

- 1 cardboard tube from a paper towel roll per every 2 students
- 1 stopwatch per every two students.

Activity

1. Have students pair up and listen for their partner's heartbeat by placing the tube over the partner's heart.
2. Count the number of beats per 30 seconds. Add this number together twice to find out how many times each minute the person's heart beats.
3. Have one partner run in place for one minute, then listen again. Have the students write down what they hear and calculate the new beats per minute.
4. Have the partners switch.
5. Subtract the first number from the second number to determine how many more beats per minute the heart beats after exercise.

Follow-Up Discussion: The heart beats faster after exercise in order to pump more blood (oxygen) to the working muscles.

Study more about the heart: do diagrams; trace the path of blood through the heart and lungs; read about the heart; think of all the ways we use the word "heart" (heart-throb, heartbreak, heartless, heart-to-heart, heartsick, heart-rendering, take to heart, by heart, hearty, heartfelt).

Evaluation: Check students' recordings to make sure they are within reasonable limits.

Courtesy The Franklin Institute Online (<http://www.fi.edu/>) from "The Heart: An Online Exploration" Enrichment Activities.



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