Name: _____

Block: _____

We've got the beat

1. Determine your resting heart rate.

While sitting at your desk, locate either your radial or carotid pulse. Count the number of beats in 30 seconds. Rest for a minute or two between trials.

Trial 1 _____ * 2 = _____ BPM

Trial 2 _____ * 2 = _____ BPM

Trial 3 _____ * 2 = _____ BPM

Why do we do three trials instead of just one? _____

_____

_____

Now, find the MEAN or average of the three trials:

Average resting Heart Rate: _____

2. Read through the procedure carefully before starting it. You will want one person to be timer/recorder and one person to be the subject, or the person who does the exercise and measures their heart rate.

    a. Run down and up the stairs twice. Come into the classroom and measure your heart rate. Record it on the back of this sheet.
    b. Repeat this for a total three trials (running up and down the stairs once for each trial), measuring your heart rate between each trial. Record it.
    c. Return to the classroom and sit down. Measure your heart rate at 2, 5, and 10 minutes after your exercise. Record each one.

Resting	
After 1st run	
After 2nd run	
After 3rd run	
Resting for 2 min	
Resting for 5 min	
Resting for 10 min	

3. Set up the information from Table 2 onto graph paper.
Write the time variable on the x-axis. This is the independent variable.
Write the dependent (what you are measuring) variable on the y-axis.
Write the title as "Heart Rate vs. Time" (dependent vs. independent variables)

Choose your scale carefully! We always start at zero and never leave a gap. Make sure you use all the space available – don't squish your graph into a small space.

Indepedent variable: _____ Range: 0 - _____ _____

Dependent variable: _____ Range: 0 - _____ _____

Questions:

Why can't you take your pulse with your thumb?

_____

_____

_____

What is the range of the class's resting heart rates? What is the lowest? What is the highest?

_____

Do you think the whole class's data gives a good idea of what is normal? Who does this population represent?

_____

_____

_____

_____

_____

What is a "normal" resting heart rate in BPM? Where did you find this information?

_____

_____

_____

After ten minutes, is your heart rate back to its resting speed? How does did it take, or do you think it will take, to get back to normal ... and why?

_____

_____

_____

_____

What else, besides exercise, might speed up your heart rate?

_____

_____

_____

Consider a question to take this experiment further – do you think longer exercise might make different results? More intense exercise? Do you think it will affect how long it takes to get back to resting? Write your question as a hypothesis, and propose an experiment to test it.

_____

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