

Scientist Dr. E. McSquare is compiling his scientific findings into a single volume. He forgot to give titles to the sections of his reports and now they're all mixed up! Use the definition guide to help Dr. McSquare label his reports.

Definition Guide:

Q = Question: The question is the first part of the scientific process. What question do you want to answer?

H = Hypothesis: A hypothesis is a statement that can be proven true or false. It is often written in the form "If (a) then (b)."

E = Experiment: The experiment is an activity that is used to test if your hypothesis is true or false.

D = Data: Data are the results of the experiment.

C = Conclusion: The conclusion is a final statement that describes what you learned from the experiment and results.

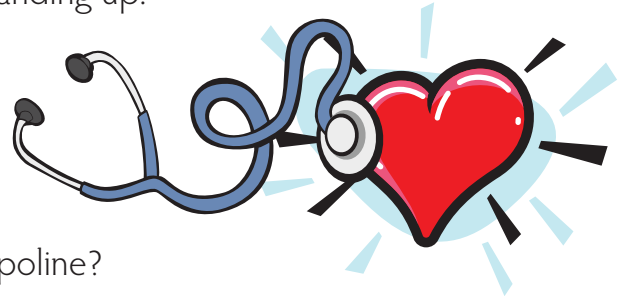
E I will test my lab partners' resting heart rates by counting their heart beats in three different positions: lying down, sitting, and standing up.

Object: Bounce count

Golf ball: 4 bounces

Medicine Ball: 7 bounces

Baseball: 5 bounces



Do heavier objects bounce higher on a trampoline?

If standing up requires more physical effort than lying down, then one's pulse standing up will be faster than one's pulse lying down.

From a fixed height, I will drop a variety of objects onto a trampoline several times and observe the number of bounces.

If there is and equal an opposite reaction to every action, then heavier objects will bounce higher off a trampoline.

Maurice: Lying down - 55 bpm, Sitting - 59 bpm, Standing - 65 bpm

Lucy: Lying down - 58 bpm, Sitting - 60 bpm, Standing - 70 bpm

Carlos: Lying down - 51 bpm, Sitting - 54 bpm, Standing - 56 bpm

How does your resting heart rate change depending on your position?

The experiment and data show that heavier objects bounce higher on trampolines.

A person's position affects his or her resting heart rate. The heart rate is higher if the body is upright.