Teacher Information
6th Grade Unit. Activity 8: “Open Heart Inquiry”

Suggested time period:
Two 45-minute periods or 90 minute block

Concepts and skills to review with students before activity:
- Scientific process, designing and carrying out an experiment
- Use of heart rate sensors and computers.

Materials:
Computers
USB Links
Heart rate Sensors
Saline solution

Suggested variables for students to test:
- Body posture (standing, sitting, lying down)
- Meditation or relaxation techniques
- Caffeine ingestion
- Sugar ingestion
- Playing a competitive, high-suspense game such as the card game “speed” or a video game
- Listening to pop music versus classical or no music
- Air temperature (if it is hot or cold outside)

Scientific Process:
Teachers are encouraged to use their own series of steps. Otherwise, you may use the following.
Step One: Define question
Step Two: Form hypothesis(es)
Step Three: Identify variables
Step Four: Design procedure
Step Five: Collect data
Step Six: Analyze data (make graphs, compute averages)
Step Seven: Draw conclusions

Optional extensions and substitutions:
- Have students present their findings to the class.
- Have students make a science fair type poster about their project.

Learning goals:
After completing this exercise students should be able to:
- Design and carry out a simple experiment.