



Lesson Logistics

Learning Outcomes

Grades 4-6
Meeting basic needs and maintaining a healthy body

Class Organization

Divide the students into groups of two.

Ensure that each group has a *Student Handout*, a plastic sports drink bottle, a balloon and a latex glove.

One *Cardiac Pop Pump* model will be constructed per class.

Notes

Locating the model near a sink is useful, but not required.

Place newspaper around the base of the model in order to soak up any spillages that may occur.

To make precise holes in the plastic bottles, a heated screwdriver or soldering iron is required. Therefore, using a fume hood is strongly recommended.

Further Exploration

As a starter activity, introduce the topic of the circulatory system and discuss the importance of the heart. Ask students to take their pulse over a 30 second period. Multiplying this number by two gives students an estimation of how often their heart beats in a minute. Have students perform jumping jacks for 1 minute and then take their pulse immediately. Compare the two heart rates and explain the reasons for the change (see *Inquiry Approaches*).