

Circulatory System Performance Assessment

Lesson Concept The structure of the heart enables it to oxygenate and pump blood throughout the body. The body's activity level directly relates to the rate at which the heart pumps blood.

Time 30 minutes

Materials Whole class
Timer
Individual
Date Table worksheet

Advance Preparation 1. Duplicate assessment for each student

Procedure:

1. If you have not already, demonstrate how to find a pulse in the neck and/or wrist. Allow students time to find their own.
2. Lead students in calm breathing exercises in their seats to lower their heart rate.
3. Lead students in the following activities for 1 minute each. After each activity ask them to find their pulse, count how many beats they feel in 15 seconds. Ask students to multiply by 4 (to calculate beats/minute), and record their pulse rate in their data chart.
 - Sitting at their desks (resting heart rate)
 - Walk around the classroom (or outside).
 - Run in place.
 - Do 50 jumping jacks.
4. Ask students to graph their data for each activity and write a summary statement of what the data reveals.

Name _____

Data Table

	Sitting 	Walking 	Running 	Jumping Jacks 
Number of beats per minute				

KEY

Data table should have the following:

- title (e.g., the effect of different activities on heart rate)
- numbers in each of the columns
- numbers should increase in the four activities

Graph should have the following:

- title (e.g., the effect of different activities on heart rate)
- labeled x axis as types of activities (sitting, walking, jogging, jumping jacks)
- label y axis as heart beats per minute
- data from chart should be appropriately plotted on a bar graph (each event is separate from the next event)
- bars should increase in amount of beats (and must correspond to what was in the data chart)

Summary statement

- should summarize what the graph says
 - should use the data from the graph to make the statement
 - should include a range of the data
- (Example: My heart rate increases as I do more active movements. It changed from _____when I was resting to _____when I did jumping jacks. When I rested, my heart rate was____; then I walked and it increased to _____. When I jogged it was_____ and when I did the jumping jacks, it was _____)