Name _____ Date _____

LESSON 10.4

Interdisciplinary Application

For use with the lesson "Interpret Stem-and-Leaf Plots and Histograms"

Pulse

Physical Education Pulse is the number of times per minute your heart beats. Each beat of the heart pushes blood into the lungs, where the blood replenishes its oxygen. Then the blood carries the oxygen to all of the muscles throughout the body. As a person's activity increases, his or her pulse will also increase. This occurs because the muscles of the body require more oxygen to support the increased level of activity. The larger the person, the slower the heart rate. A newborn baby's heart rate is about 120 beats per minute. The typical rate for an adult is about 72 beats per minute. Doctors consider resting rates from 60 to 100 beats per minute normal. Athletic training enlarges the heart and slows the heartbeat. Many well-trained athletes have resting rates from 40 to 60 beats per minute.

Your pulse can be determined by placing two fingers on your wrist (position fingers on the underside and thumb-side of your wrist.) Count the number of beats in 30 seconds, and then double for the pulse rate per minute.

In Exercises 1–6, use the above information on finding your pulse to help answer the questions.

1. Have each student in your class determine his or her pulse. Collect the data.
2. Make a stem-and-leaf plot of the data in Exercise 1.
3. Use the stem-and-leaf plot in Exercise 2 to determine the mean, median, and mode(s) of the data.
4. Have each student in your class jog in place for one minute and then take his or her pulse for 30 seconds and double the result. Collect the data.
5. Make a stem-and-leaf plot of the data in Exercise 4.
6. Use the stem-and-leaf plot in Exercise 5 to determine the mean, median, and mode(s) of the data.