

A Hot Hand

In this experiment you will measure the temperature of the palm of your hand and the palm temperatures of your teammates. In the process, you will get to know the computer program Logger Lite and how to use Temperature Probes.

OBJECTIVES

In this experiment, you will

- Use a temperature probe and Logger Lite software to measure temperature.
- Calculate temperature averages.
- Compare results.

MATERIALS

computer
Logger Lite software
Temperature Probe

beaker
water
paper towel

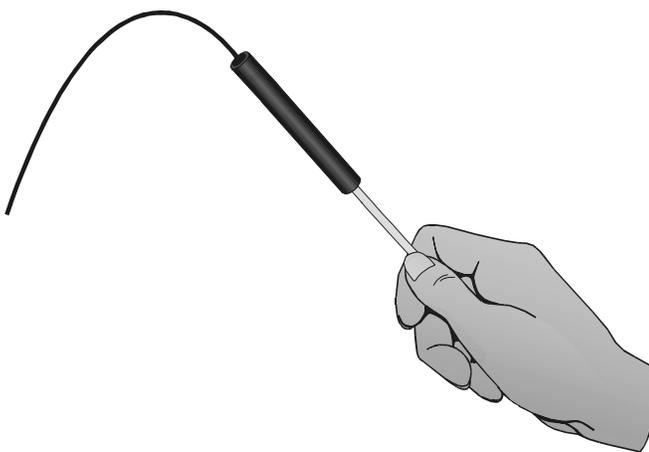


Figure 1

PROCEDURE

1. Connect the Temperature Probe. Start the Logger Lite software program.
2. Measure the temperature of the palm of your hand.
 - a. Click to begin data collection.
 - b. Pick up the Temperature Probe and hold its tip in the palm of your hand as shown in Figure 1. Click "stop" when 60 seconds have gone by to end data collection.

3. Record your maximum temperature. (data chart below)
 - a. Click the Statistics button, . The statistics box will appear on the graph, displaying several statistical values for the data, including the minimum and maximum temperatures recorded during the collection period.
 - b. In your data table, record the maximum temperature.
 - c. Close the Statistics box.
 - d. Choose Store Latest Run from the Experiment menu to store your data.
4. Prepare the Temperature Probe for the next run.
 - a. Cool the Temperature Probe by placing it into a beaker of room-temperature water until its temperature reaches the temperature of the water. The temperature of the probe is displayed in the meter.
 - b. Use a paper towel to dry the probe. Be careful not to warm the probe as you dry it.
5. Repeat Steps 2–4 for each person in your team. However, when you repeat the steps, after clicking the Statistics button, . Choose Latest: Temperature as the run for which you want the statistics. Then, click to view the statistics for the latest run. Do not choose Store Latest Run after the last run.
6. Save a copy of the graph to include in your portfolio (see your teacher for help).

DATA

Student name	Maximum temperature
	°C
	°C
	°C
	°C
Team average	°C

PROCESSING THE DATA

1. Calculate your team average for the maximum temperatures. Record the result in your data table above.
2. How did the maximum temperatures of your teammates compare?
3. Who had the “hottest hand”?