

# LONG TERM SOIL TEMPERATURE : FIELD WORKSHEET



Name: \_\_\_\_\_

Class: \_\_\_\_\_

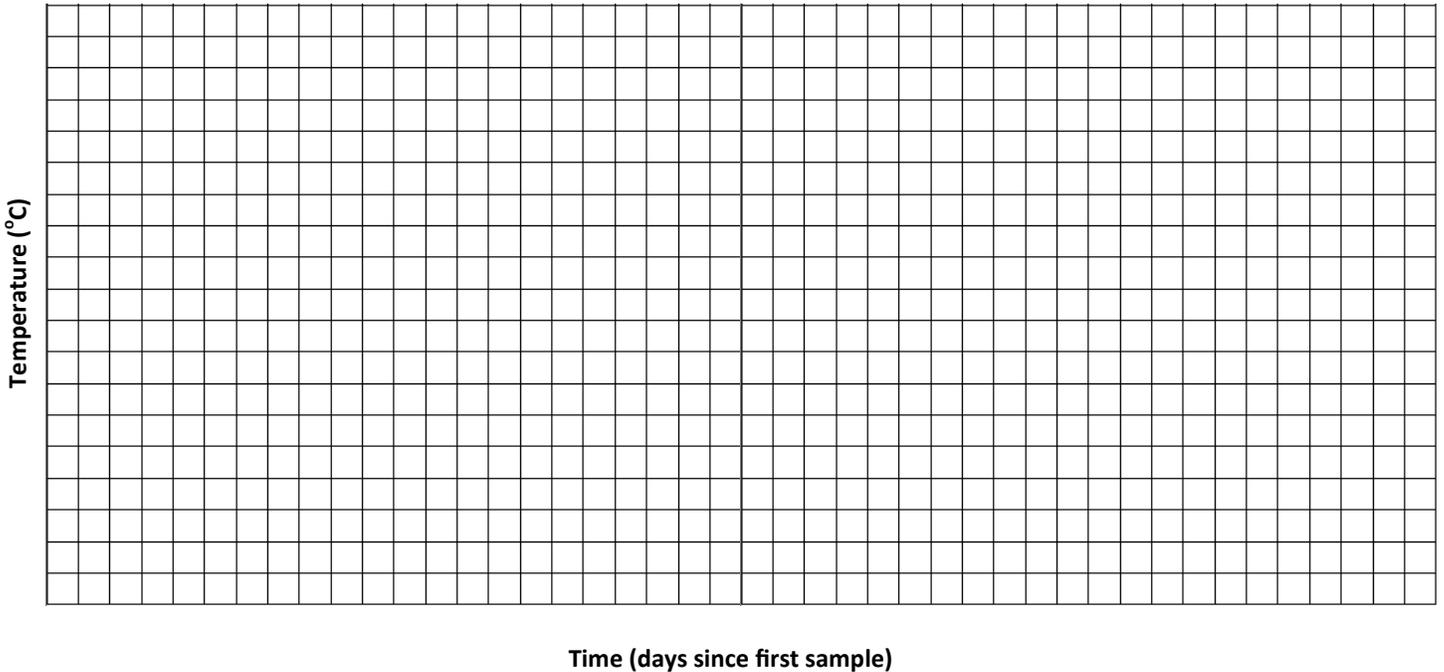
Date: \_\_\_\_\_

1. Site Name: \_\_\_\_\_ Site Location: \_\_\_\_\_
2. Mark two points on your thermometer in permanent marker: one 5cm from the tip, and another 10cm from the tip. These will ensure that you take temperature measurements at the correct depths.
3. What level of sunlight is the site currently receiving (also record this on the table on the next page):  
\_\_\_\_ Direct Sunlight    \_\_\_\_ Partial Shade    \_\_\_\_ Full Shade
4. Hold up your thermometer, wait 2 minutes, and record the ambient air temperature: \_\_\_\_\_ °C
5. **Measuring the Soil Temperature:** If the soil is hard, use the nail or skewer to make a pilot hole for the thermometer. This is to prevent unnecessary damage to the thermometer. Submerge the thermometer up to the 5cm mark and wait 2 minutes for the reading to stabilize before recording on the table.  
  
Submerge the thermometer to the 10cm mark (again puncturing the soil with the nail or skewer if necessary). Wait 2 minutes before recording on the table.
6. Repeat the 5cm and 10cm measurements on two more sites within 25 cm of the original measurement, and record on the table on the next page.
7. Repeat the process for as many sites as you like, and record the results on the table on the next page. You will also need to average your three readings at each depth, and calculate the difference between the averages at each site. If you are tracking more than one site, or wish to record more than the space allotted, feel free to print more copies of page 2 for extra space.



8. Use the graph provided to make a line graph for average temperatures over time. You should have three separate lines: Air temp, 5 cm and 10 cm Use different colors or symbols to distinguish your lines from one another. Use your graph to answer questions 9-12.

Title: \_\_\_\_\_



9. How does the soil temperature change over the course the time studied?

10. Does soil temperature appear to rise and fall with air temperature? Are the changes in soil temperature more or less drastic than the changes in air temperature?

11. What happens to the difference between the temperatures at 5cm and 10cm as air temperature rises? Does this difference grow, shrink, or stay about the same? Why do you think this is?

12. What other trends do you notice from your graph? Are there any anomalies in your data? If so, what theories do you have about them?