

SOIL TEMPERATURE AS A FUNCTION OF DEPTH AND SUNLIGHT: 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:

____ 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: **Temp at 5cm:** _____ °C

Submerge the thermometer to the 10cm mark (again puncturing the soil with the nail or skewer if necessary).

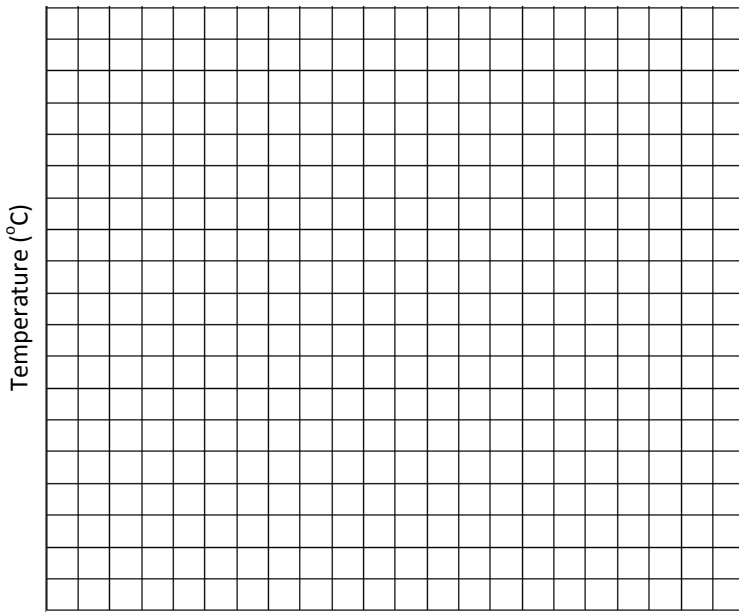
Wait 2 minutes before recording: **Temp at 10cm:** _____ °C

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.

11. Use the graph provided to make a histogram of the average temperatures at 5cm and 10cm at each site. Each site should have two bars (5cm and 10cm). Also include two bars to represent the averages at each depth across all sites. Does depth of sample affect temperature?

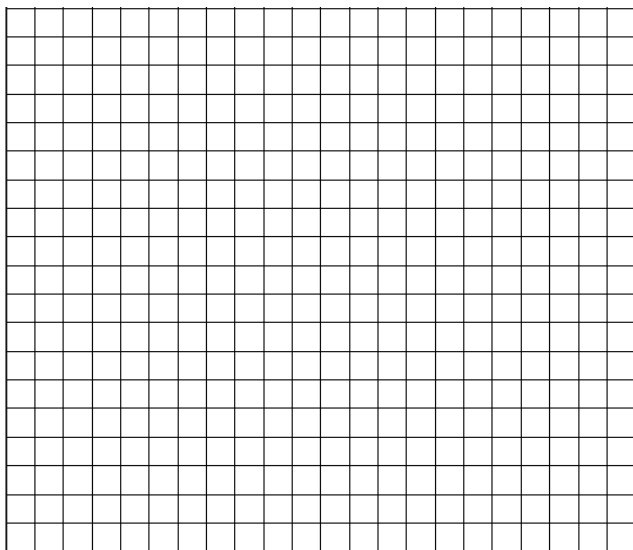
Title: _____



Site

12. Use the graph below to plot your own hypothesis about how the either sunlight or air temperature affects soil temperature. You may want to use the averages you calculated in question 9. Remember to label your axes!

Title: _____



Hypothesis: _____

Outcome: _____
