GLOBE Soil Temperature Data Sheets

Print the Soil Temperature Data Sheet:

- Soil Temperature Data Sheet

Or select an alternative option below:

- Soil Temperature: New Site
  - Use this the first time you visit a sampling site to record site definition data
- Soil Temperature: Diurnal Cycle
  - This data sheet has space to record soil temperature over a diurnal cycle (>5 measurements in one day).
- Soil Temperature with field guide (2 pages)
  - This data sheet has the field guide incorporated.
- Soil Temperature for youth
  - Use this data sheet when working with young researchers.

GLOBE Soil Temperature Data Sheet

Name: _____ Site Name: _____

Date: _____

Type of Soil Thermometer: ☐ Dial ☐ Digital ☐ Other_____

Has there been precipitation within the last 24 hours? ☐ Yes ☐ No

Soil Temperature Measurements

Sample Number	Time (local)	Soil Temperature at 5 cm (°C)	Soil Temperature at 10 cm (°C)	Air Temperature (°C)
1				
2				
3				

Stop and Check:

Were all measurements taken within a 20-minute period?

Comments:

GLOBE Soil Temperature Data Sheet: New Site

Name: _____ Site Name: _____

Date: _____ Time (local): _____

New Site Definition

Latitude: _____ Longitude: _____

Elevation: _____ m

Surface State: ☐ Natural ☐ Plowed ☐ Graded ☐ Backfill ☐ Compacted ☐ Other

Surface Cover: ☐ Bare Ground ☐ Short Grass (under 10 cm) ☐ Long Grass (over 10 cm)

Canopy Cover: ☐ Open ☐ Some Trees (within 20 m) ☐ Canopy Overhead

Type of Soil Thermometer: ☐ Dial ☐ Digital ☐ Other_____

Has there been precipitation within the last 24 hours? ☐ Yes ☐ No

Soil Temperature Measurements

Sample Number	Time	Soil Temperature at 5 cm (°C)	Soil Temperature at 10 cm (°C)	Air Temperature (°C)
1				
2				
3				

Comments:

Stop and Check:

Were all measurements taken within a 20-minute period?

GLOBE Soil Temperature Data Sheet: Diurnal Cycle

Name: _____ Site Name: _____

Date: _____

Type of Soil Thermometer: ☐ Dial ☐ Digital ☐ Other_____

Has there been precipitation within the last 24 hours? ☐ Yes ☐ No

Soil Temperature Measurements

Sample Number	Time (local)	Soil Temperature at 5 cm (°C)	Soil Temperature at 10 cm (°C)	Air Temperature (°C)
1				
2				
3				
4				
5				
6				
7				

Comments:

GLOBE Soil Temperature Data Sheet and Field Guide (page 1)

Name: _____ Site Name: _____

Date: _____

Type of Soil Thermometer: ☐ Dial ☐ Digital ☐ Other_____

Has there been precipitation within the last 24 hours? ☐ Yes ☐ No

Soil Temperature Measurements

1. Locate your sampling point.
2. Use a nail to make a 5 cm deep pilot hole for the thermometer. Pull the nail out carefully. If the soil cracks, move 25 cm and start again.
3. Insert the thermometer through the longer spacer.
4. Gently push the thermometer into the soil and wait 2 minutes.
5. Note the temperature here: _____ °C
6. Wait 1 minute. Is the temperature within 1.0°C of what you noted on step 5? If yes, record the temperature below. If not, continue taking temperature readings every 1 minute until readings are within 1.0°C.

Sample #1, 5 cm. Time (local): _____ Temperature: _____°C

7. Remove the thermometer and use the nail to deepen the hole to 10 cm.
8. Replace the long spacer with the shorter spacer.
9. Insert the thermometer into the same hole and wait 2 minutes.
10. Note the temperature here: _____ °C
11. Wait 1 minute. Is the temperature within 1.0°C of what you noted on step 5? If yes, record the temperature. If not, continue taking temperature readings every 1 minute until readings are within 1.0°C.

Sample #1, 10 cm. Time (local): _____Temperature: _____°C

Soil Temperature Measurements, continued

12. Remove the thermometer and move to a location at least 25 cm away from your first hole.
13. Repeat steps 2 – 11 for this hole.

Sample #2. Time (local): _____ Temperature at 5 cm: _____°C

Time (local): _____ Temperature at 10 cm: _____°C

12. Remove the thermometer and move to a location at least 25 cm away from your second hole.
13. Repeat steps 2 – 11 for this hole.

Sample #3. Time (local): _____ Temperature at 5 cm: _____°C

Time (local): _____ Temperature at 10 cm: _____°C

12. If possible, record the current air temperature.

Air Temperature: _____°C

Stop and Check:

Were all measurements taken within a 20-minute period?

Comments:

GLOBE Soil Temperature Data Sheet: Youth

Name: _____

Site Name: _____

Date: _____ Time (local): _____

Type of Soil Thermometer: ☐ Dial ☐ Digital ☐ Other_____

Has there been precipitation (rain or snow) in the last 24 hours? ☐ Yes ☐ No

Soil Temperature Measurements

Sample #1.

Temperature at 5 cm: _____ °C

Temperature at 10 cm: _____ °C

Sample #2.

Temperature at 5 cm: _____ °C

Temperature at 10 cm: _____ °C

Sample #3.

Temperature at 5 cm: _____ °C

Temperature at 10 cm: _____ °C

Stop and Check:

Were all measurements taken within a 20-minute period?

Notes: