



# GLOBE

# Surface Temperature

# Data Sheets

**Print the Surface Temperature Data Sheet:**

- [Surface Temperature Data Sheet](#)

**Or select an alternative option below:**

- [Surface Temperature: New Site](#)
  - Use this the first time you visit a sampling site to record site definition data.
- [Surface Temperature: Multi-Day, No Snow](#)
  - This data sheet has space to record data for multiple days. If snow is present, print the “Surface Temperature Data Sheet.”
- [Surface Temperature: Multi-Surface](#)
  - This data sheet has space to record data for multiple surfaces.
- [Surface Temperature with field guide \(2 pages\)](#)
  - This data sheet has the field guide incorporated.
- Surface Temperature for youth:
  - [Youth data sheet for use when no snow is present](#)
  - [Youth data sheet for use when snow is present](#)

# GLOBE Surface Temperature Data Sheet

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

Date: \_\_\_\_\_ Time (local): \_\_\_\_\_

Overall surface condition: ☐ Wet ☐ Dry ☐ Snow

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## Surface Temperature Measurements

Sample Number	Surface Temperature (°C)	Snow Depth (mm) (*If snow selected above)
1		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
2		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
3		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
4		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
5		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
6		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
7		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
8		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
9		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
AVERAGE		

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Comments:

# GLOBE Surface Temperature Data Sheet: New Site

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

Date: \_\_\_\_\_ Time (local): \_\_\_\_\_

## New Site Definition

Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

Elevation: \_\_\_\_\_ m IRT Instrument Type: \_\_\_\_\_

Homogenous site size: ☐ 30m x 30m ☐ 90m x 90m ☐ Other \_\_\_\_\_ m x \_\_\_\_\_ m

Surface Cover: \_\_\_\_\_

Overall surface condition: ☐ Wet ☐ Dry ☐ Snow

Sample Number	Surface Temperature (°C)	Snow Depth (mm) (*If snow selected above)
1		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
2		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
3		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
4		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
5		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
6		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
7		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
8		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
9		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
AVERAGE		

# GLOBE Surface Temperature Data Sheet: Multi- Day, no snow

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

## Surface Temperature Measurements

	Date, Time (local):	Date, Time (local):	Date, Time (local):	Date, Time (local):
	Surface: <input type="checkbox"/> Wet <input type="checkbox"/> Dry	Surface: <input type="checkbox"/> Wet <input type="checkbox"/> Dry	Surface: <input type="checkbox"/> Wet <input type="checkbox"/> Dry	Surface: <input type="checkbox"/> Wet <input type="checkbox"/> Dry
Sample Number	Surface Temperature (°C)	Surface Temperature (°C)	Surface Temperature (°C)	Surface Temperature (°C)
1				
2				
3				
4				
5				
6				
7				
8				
9				
AVERAGE				

Comments:

# GLOBE Surface Temperature Data Sheet: Multi- Surface

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

Date: \_\_\_\_\_ Time (local): \_\_\_\_\_

## Surface Temperature Measurements

If snow is less than 10 mm deep, write “Trace”

	Surface Type:		Surface Type:	
	Surface condition: <input type="checkbox"/> Wet <input type="checkbox"/> Dry <input type="checkbox"/> Snow		Surface condition: <input type="checkbox"/> Wet <input type="checkbox"/> Dry <input type="checkbox"/> Snow	
Sample Number	Surface Temperature (°C)	Snow Depth (if selected, mm)	Surface Temperature (°C)	Snow Depth (if selected, mm)
1				
2				
3				
4				
5				
6				
7				
8				
9				
AVERAGE				

Comments:

# GLOBE Surface Temperature Data Sheet and Field Guide (page 1)

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

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

Overall surface condition: ☐ Wet ☐ Dry ☐ Snow

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## Surface Temperature Measurements

1. If the air temperature varies by more than 5°C from the temperature where the infrared thermometer (IRT) is stored, wrap the IRT in a Thermal Glove, or place outside for at least 60 minutes.
2. Take a cloud observation following the GLOBE Clouds Protocol.
3. Select nine observation spots at least 5 meters apart in a homogeneous area.
4. Go to the first spot and record the time.

Time (local) : \_\_\_\_\_

5. Stand so you do not cast a shadow on your sampling spot and hold the IRT with your arm extended straight out. Point the IRT directly at the ground.
6. Hold the IRT as still as possible. Press and release the recording button. Record the temperature measurement to the nearest tenth degree.

**Sample #1.** Temperature : \_\_\_\_\_ °C

7. If there is snow on the ground, measure and record the snow depth. If the snow is less than 10 mm deep, record "Trace".

**Sample #1.** Snow Depth: \_\_\_\_\_ mm

8. Repeat steps 4-7 for each of the remaining observation spots. Record your data in the table on the back of this sheet.

# GLOBE Surface Temperature Data Sheet and Field Guide (page 2)

## Surface Temperature Measurements, continued

Sample Number	Surface Temperature (°C)	Snow Depth (mm) (*If snow selected above)
1 (from front page)		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
2		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
3		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
4		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
5		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
6		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
7		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
8		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
9		<input type="checkbox"/> Trace (<10 mm) <input type="checkbox"/> Measurable (>10mm): _____ mm
<b>AVERAGE</b>		

Comments:

# GLOBE Surface Temperature Data Sheet: Youth, No Snow

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

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

Date: \_\_\_\_\_ Time (local): \_\_\_\_\_

Is the ground wet or dry?: ☐ Wet ☐ Dry

Observation Number	Surface Temperature (°C)
1	_____ . _____ °C
2	_____ . _____ °C
3	_____ . _____ °C
4	_____ . _____ °C
5	_____ . _____ °C
6	_____ . _____ °C
7	_____ . _____ °C
8	_____ . _____ °C
9	_____ . _____ °C

Find the **average** surface temperature:

\_\_\_\_\_ . \_\_\_\_\_ °C

Notes:



# GLOBE Surface Temperature Data Sheet: Youth, Snow present

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

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

Date: \_\_\_\_\_ Time (local): \_\_\_\_\_

What is the ground like?: ☐ Wet    ☐ Dry    ☐ Snowy

If the snow is less than 10 mm deep, check the box for "Trace."

Observation Number	Surface Temperature (°C)	Snow Depth (mm)
1	_____ °C	_____ mm <input type="checkbox"/> Trace
2	_____ °C	_____ mm <input type="checkbox"/> Trace
3	_____ °C	_____ mm <input type="checkbox"/> Trace
4	_____ °C	_____ mm <input type="checkbox"/> Trace
5	_____ °C	_____ mm <input type="checkbox"/> Trace
6	_____ °C	_____ mm <input type="checkbox"/> Trace
7	_____ °C	_____ mm <input type="checkbox"/> Trace
8	_____ °C	_____ mm <input type="checkbox"/> Trace
9	_____ °C	_____ mm <input type="checkbox"/> Trace
AVERAGE	_____ °C	_____ mm