



# GLOBE

## Relative Humidity Data Sheets

**Print the Relative Humidity Data Sheet:**

- [Relative Humidity Data Sheet](#)

**Or select an alternative option below:**

- Relative Humidity: Multi-Day
  - [Using a sling psychrometer](#)
  - [Using a digital hygrometer](#)
- Relative Humidity with the field guide incorporated
  - [Using a sling psychrometer](#)
  - [Using a digital hygrometer](#)
- Relative Humidity for youth
  - [Using a sling psychrometer](#)
  - [Using a digital hygrometer](#)
- [Relative Humidity Reference Table](#)
  - Use this table to determine relative humidity from the dry and wet bulb readings.

# GLOBE Relative Humidity Data Sheet

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

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

## Relative Humidity Measurement

Select instrument used and record the appropriate data.

<input type="checkbox"/> Sling Psychrometer	OR	<input type="checkbox"/> Digital Hygrometer
Dry bulb temperature: _____ °C		Air temperature: _____ °C
Wet bulb temperature: _____ °C		Relative Humidity: _____ %
Relative Humidity: _____ % <i>*GLOBE data entry calculates this for you</i>		<div>Record relative humidity to the nearest 1%</div>
<div>Record the temperature to the nearest 0.5°C</div>		

*If there is fog, rain or snow, the relative humidity is 100%; write "condensation occurring" in comments.*

Comments :

GLOBE Relative Humidity Data Sheet: Multi-day  
Sling Psychrometer

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

Relative Humidity Measurements

Record the temperature to the nearest 0.5°C

Date	Time (local)	Dry bulb temperature (°C)	Wet bulb temperature (°C)	Relative Humidity (%) <i>(GLOBE Data Entry calculates this for you)</i>

Comments :

# GLOBE Relative Humidity Data Sheet: Multi-day Digital Hygrometer

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

## Relative Humidity Measurements

Record the temperature to the nearest 0.5°C. Record the humidity to the nearest 1%.

Date	Time (local)	Air Temperature (°C)	Relative Humidity (%)

*If there is fog, rain or snow, the relative humidity is 100%; write “condensation occurring” in comments.*

Comments :

# GLOBE Relative Humidity Data Sheet and Field Guide: Sling Psychrometer

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

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

## Relative Humidity Measurement

1. Stand in the shade with your back to the sun and away from people and objects.
2. Keep the psychrometer as far away from your body as possible so your body heat does not alter the temperature readings.
  - This is especially important in cold weather! Do not touch or breathe on the sensor.
3. Open the sling psychrometer case by pulling out the slider, which contains two thermometers.
4. Wait three minutes to allow the thermometer to acclimate.
5. With your eyes level to the instrument, read the current dry bulb temperature to 0.5°C using the thermometer with no wick attached. Record below.

**Dry bulb temperature:** \_\_\_\_\_ °C

6. Check that there is distilled water in the reservoir and the wick is moist. If dry, add distilled water.
7. Sling the psychrometer for three minutes and then let the psychrometer stop whirling on its own.
8. Read and record the wet bulb temperature to 0.5°C (thermometer with wick attached).

**Wet bulb temperature:** \_\_\_\_\_ °C

9. Determine the relative humidity using the sliding scale found in the case or a psychrometric chart. When entering the data, this calculation is done for you.

**Relative humidity:** \_\_\_\_\_ %

*If there is fog, rain or snow, the relative humidity is 100%; write "condensation occurring" in comments.*

10. Write any comments on the back of this page.

# GLOBE Relative Humidity Data Sheet and Field Guide: Digital Hygrometer

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

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

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## Relative Humidity Measurement

1. Place the digital hygrometer in a shaded area with airflow (i.e. an instrument shelter) for 30 minutes.

2. After 30 minutes record the time.

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

3. Read the current air temperature.

**Air temperature:** \_\_\_\_\_ °C

4. Read the relative humidity to the nearest 1%. *Note: if there is fog, rain or snow, the relative humidity is 100%; write “condensation occurring” in comments.*

**Relative humidity:** \_\_\_\_\_ %

5. Return the digital hygrometer to an indoor location and store in a dry place.
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Comments :

# GLOBE Relative Humidity Data Sheet: Youth Sling Psychrometer

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

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

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

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## Relative Humidity Measurement

Dry bulb temperature: \_\_\_\_\_ . \_\_\_\_\_ °C

Record the  
temperature to the  
nearest 0.5°C

Wet bulb temperature: \_\_\_\_\_ . \_\_\_\_\_ °C

Dry bulb temperature minus  
wet bulb temperature: \_\_\_\_\_ °C ➡ round to the nearest degree

*\*Use the Relative Humidity table to find the relative humidity!\**

Relative Humidity: \_\_\_\_\_ %

Record relative  
humidity to the  
nearest 1%



If there is fog, rain or snow, the relative humidity is 100%.  
Write “condensation occurring” in the notes.

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Notes:

# GLOBE Relative Humidity Data Sheet: Youth Digital Hygrometer

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

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

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

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## Relative Humidity Measurement

Air temperature: \_\_\_\_\_ . \_\_\_\_\_ °C

Record the  
temperature to the  
nearest 0.5°C

Relative Humidity: \_\_\_\_\_ %

Record relative  
humidity to the  
nearest 1%



If there is fog, rain or snow, the relative humidity is 100%.

Write “condensation occurring” in the notes.

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Notes:



# Relative Humidity Reference Table

1. Find the dry bulb temperature in the first column. Put one finger on it.
2. Find the difference between the dry and wet bulb temperatures. Put one finger on this number in the top row.
3. Bring your fingers together. The relative humidity is where the column and row intersects.

Dry bulb temp (°C)	Dry bulb temperature minus wet bulb temperature (°C)									
	1	2	3	4	5	6	7	8	9	10
10	88	77	66	55	44	34	24	15	6	--
11	89	78	67	56	46	36	27	18	9	--
12	89	78	68	58	48	39	29	21	12	--
13	89	79	69	59	50	41	32	23	15	7
14	90	79	70	60	51	42	34	26	18	10
15	90	80	71	61	53	44	36	27	20	13
16	90	81	71	63	54	46	38	30	23	15
17	90	81	72	64	55	47	40	32	25	18
18	91	82	73	65	57	49	41	34	27	20
19	91	82	74	65	58	50	43	36	29	22
20	91	83	74	66	59	51	44	37	31	24
21	91	83	75	67	60	53	46	39	32	26
22	92	83	76	68	61	54	47	40	34	28
23	92	84	76	69	62	55	48	42	36	30
24	92	84	77	69	62	56	49	43	37	31
25	92	84	77	70	63	57	50	44	39	33
26	92	85	78	71	64	58	51	46	40	34
27	92	85	78	71	65	58	52	47	41	36
28	93	85	78	72	65	59	53	48	42	37
29	93	86	79	72	66	60	54	49	43	38
30	93	86	79	73	67	61	55	50	44	39
31	93	86	80	73	67	61	56	51	45	40
32	93	86	80	74	68	62	57	51	46	41
33	93	87	80	74	68	63	57	52	47	42
34	93	87	81	75	69	63	58	53	48	43