GLOBE Dissolved Oxygen Data Sheets

Print the Dissolved Oxygen Data Sheet:

- Dissolved Oxygen Data Sheet: Using a Kit
- Dissolved Oxygen Data Sheet: Using a Probe

Or select an alternative option below: :

- Dissolved Oxygen: New Site (Use this the first time you visit a sampling site to record site definition data.)
  - New Site: Dissolved Oxygen with a Kit (2 pages)
  - New Site: Dissolved Oxygen with a Probe (2 pages)
- Dissolved Oxygen: Weekly Measurements with Kit
  - This data sheet has space to record weekly dissolved oxygen measurements using a kit.
- Dissolved Oxygen data sheet with the field guide incorporated
  - Field Guide: Dissolved Oxygen with a Kit
  - Field Guide: Dissolved Oxygen with a Probe (2 pages)
- Dissolved Oxygen for youth
  - For Youth: Dissolved Oxygen with a Kit
  - For Youth: Dissolved Oxygen with a Probe

GLOBE Dissolved Oxygen Data Sheet: Kit

Name: _____ Site Name: _____

Date: _____ Time (local): _____

Water State: ☐ Normal ☐ Flooded ☐ Dry ☐ Frozen ☐ Unreachable

If anything except Normal is selected, stop here!

Kit Manufacturer: ☐ LaMotte ☐ Hach ☐ Other: _____

Model: _____

Salinity: _____ ppt

Dissolved Oxygen Measurements

Test #1: _____ mg/L

Test #2: _____ mg/L

Test #3: _____ mg/L

Average: _____ mg/L

Stop and Check:

Are all measurements within 1 mg/L unit of the average? If one is not, average the other two measurements and report this average.

Comments:

GLOBE Dissolved Oxygen Data Sheet: Probe

Name: _____ Site Name: _____

Date: _____ Time (local): _____

Water State: ☐ Normal ☐ Flooded ☐ Dry ☐ Frozen ☐ Unreachable

If anything except Normal is selected, stop here!

Probe Manufacturer: _____ Model: _____

Dissolved Oxygen Measurements

	Probe Measurement	**Salinity Correction Factor* (if needed)**	**Dissolved Oxygen (mg/L)**
Test 1			
Test 2			
Test 3			

**Please refer to your manual for the procedure for your probe. If your water body salinity is less than 1 ppt (1000mg/L) this step is not needed.*

Stop and Check:

Are all measurements within 0.2 mg/L unit of one another? If not, continue taking readings until the last three are within 0.2 mg/L of one another.

Average Dissolved Oxygen: _____ mg/L

Comments:

GLOBE Dissolved Oxygen Data Sheet: New Site with Kit (page 1)

Name: _____ Site Name: _____

Date: _____ Time (local): _____

New Site Definition

Latitude: _____ Longitude: _____

Elevation: _____ m

Name of Water Body: _____

Water Body Type: ☐ Unknown ☐ Saltwater ☐ Freshwater ☐ Brackish

Water State: ☐ Normal ☐ Flooded ☐ Dry ☐ Frozen ☐ Unreachable

If anything except Normal is selected, stop here!

Kit Manufacturer: ☐ LaMotte. ☐ Hach ☐ Other: _____

Model: _____ Salinity: _____ ppt

Dissolved Oxygen Measurements

Test #1: _____ mg/L

Test #2: _____ mg/L

Test #3: _____ mg/L

Average: _____ mg/L

Stop and Check:

Are all measurements within 1 mg/L unit of the average? If one is not, average the other two measurements and report this average.

Comments:

GLOBE Dissolved Oxygen Data Sheet: New Site with Kit (page 2)
Optional Site Definition Information

Water Body Source: _____

Can you see the bottom? ☐ Yes ☐ No

Water Sampling location:

☐ Outlet ☐ Bank ☐ Bridge ☐ Boat ☐ Inlet ☐ Pier

Channel/Bank Material:

☐ Soil ☐ Rock ☐ Concrete ☐ Vegetated Bank

Bedrock:

☐ Granite ☐ Limestone ☐ Volcanics ☐ Mixed Sediments ☐ Unknown

Freshwater Habitats Present:

☐ Rocky Substrate ☐ Vegetated Bank ☐ Mud Substrate ☐ Sand Substrate
☐ Submersed Vegetation ☐ Logs

Saltwater Habitats Present:

☐ Rocky Shore ☐ Sandy Shore ☐ Mud Flats/Estuary

If the water body source is a **river** or **stream**:

Width of moving water: _____ meters

If the water body source is a **pond, lake, reservoir, bay, ditch** or **estuary**:

Area of standing water: _____ km^2

Average depth of standing water _____ meters

GLOBE Dissolved Oxygen Data Sheet: New Site with Probe (page 1)

Name: _____ Site Name: _____

Date: _____ Time (local): _____

New Site Definition

Latitude: _____ Longitude: _____

Elevation: _____ m

Name of Water Body: _____

Water Body Type: ☐ Unknown ☐ Saltwater ☐ Freshwater ☐ Brackish

Water State: ☐ Normal ☐ Flooded ☐ Dry ☐ Frozen ☐ Unreachable

If anything except Normal is selected, stop here!

Probe Manufacturer: _____ Model: _____

Dissolved Oxygen Measurements

	Probe Measurement	**Salinity Correction Factor* (if needed)**	**Dissolved Oxygen (mg/L)**
Test 1			
Test 2			
Test 3			

**Please refer to your manual for the procedure for your probe. If your water body salinity is less than 1 ppt (1000mg/L) this step is not needed.*

Stop and Check:

Are all measurements within 0.2 mg/L unit of one another? If not, continue taking readings until the last three are within 0.2 mg/L of one another.

Average Dissolved Oxygen: _____ mg/L

GLOBE Dissolved Oxygen Data Sheet: New Site with Probe (page 2)
Optional Site Definition Information

Water Body Source: _____

Can you see the bottom? ☐ Yes ☐ No

Water Sampling location:

☐ Outlet ☐ Bank ☐ Bridge ☐ Boat ☐ Inlet ☐ Pier

Channel/Bank Material:

☐ Soil ☐ Rock ☐ Concrete ☐ Vegetated Bank

Bedrock:

☐ Granite ☐ Limestone ☐ Volcanics ☐ Mixed Sediments ☐ Unknown

Freshwater Habitats Present:

☐ Rocky Substrate ☐ Vegetated Bank ☐ Mud Substrate ☐ Sand Substrate
☐ Submersed Vegetation ☐ Logs

Saltwater Habitats Present:

☐ Rocky Shore ☐ Sandy Shore ☐ Mud Flats/Estuary

If the water body source is a **river** or **stream**:

Width of moving water: _____ meters

If the water body source is a **pond, lake, reservoir, bay, ditch** or **estuary**:

Area of standing water: _____ km^2

Average depth of standing water _____ meters

Comments:

GLOBE Dissolved Oxygen Data Sheet: Weekly with Kit

Name: _____ Site Name: _____

Kit Manufacturer: ☐ LaMotte ☐ Hach ☐ Other: _____

Model: _____ Salinity: _____ ppt

Dissolved Oxygen Measurements

*Water State Options: N = Normal, Fl = Flooded, D = Dry, Fr = Frozen, U = Unreachable.

If anything except Normal is selected, do not collect measurements.

Date	**Time (local)**	**Water State***	**Test 1** (mg/L)	**Test 2** (mg/L)	**Test 3** (mg/L)	**Average** (mg/L)

Comments:

Stop and Check: Are all measurements within 1 mg/L unit of the average? If one is not, average the other two measurements and report this average.

GLOBE Dissolved Oxygen Data Sheet and Field Guide: Using a Kit

Name: _____ Site Name: _____

Date: _____ Time (local): _____

Water State: ☐ Normal ☐ Flooded ☐ Dry ☐ Frozen ☐ Unreachable

If anything except Normal is selected, stop here!

Kit Manufacturer: ☐ LaMotte ☐ Hach ☐ Other: _____

Model: _____ Salinity: _____ ppt

Dissolved Oxygen Measurements

1. Put on protective gloves and goggles.
2. Rinse the the sample bottle and your hands with sample water three times.
3. Place the cap on the empty sample bottle.
4. Submerge the sample bottle in the sample water.
5. Remove the cap and let the bottle fill with water. Move the bottle gently or tap it to get rid of air bubbles.
6. Put the cap on the bottle while it is still under the water.
7. Remove the sample bottle from the water. Turn the bottle upside down to check for air bubbles. If you see air bubbles, discard this sample and collect another sample.
8. Follow the directions in your Dissolved Oxygen Kit to test your water sample.
9. Record the dissolved oxygen in your water sample below.

Test #1: _____ mg/L

10. Repeat the measurement using a new water sample each time. Record the dissolved oxygen values below.

Test #2: _____ mg/L

Test #3: _____ mg/L

11. Calculate the average dissolved oxygen.

Average : _____ mg/L

Stop and Check: Are all measurements within 1 mg/L unit of the average? If one is not, average the other two measurements and report this average.

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

GLOBE Dissolved Oxygen Data Sheet and Field Guide: Using a Probe (page 1)

Name: _____ Site Name: _____

Date: _____ Time (local): _____

Water State: ☐ Normal ☐ Flooded ☐ Dry ☐ Frozen ☐ Unreachable

If anything except Normal is selected, stop here!

Probe Manufacturer: _____ Model: _____

Probe Calibration

Perform calibration of your probe within 24 hours before taking a measurement.

1. Warm up the probe as described in the probe manual.
2. Use the barometer to measure the atmospheric pressure at your site. If a barometer is not available, use your elevation to approximate the atmospheric pressure at your site.
3. Follow the probe manual instructions to enter calibration information for the probe.
4. Follow the probe manual instructions to measure the first calibration point (Zero oxygen point).
5. Rinse probe with distilled water and blot dry without touching membrane.
6. Follow the probe manual instructions to measure the second calibration point (100% oxygen).
7. You are now ready to take dissolved oxygen measurements!

Dissolved Oxygen Measurements

1. Warm up the probe as described in the probe manual.
2. Lower the tip of the probe into the water body that you are sampling and slowly move it back and forth. If you are measuring a stream or river and the water is moving past the probe, you can just hold the probe in place.
3. When reading has stabilized, record the dissolved oxygen in your water body on the data table on page 2.
4. Repeat and record the dissolved oxygen readings two more times.
5. **Stop and Check:** Are all measurements within 0.2 mg/L unit of one another? If not, continue taking readings until the last three are within 0.2 mg/L of one another.
6. Apply the salinity correction (if appropriate).
7. Calculate the average of the three (adjusted if salinity correction applied) measurements.
8. Rinse the electrode with distilled water and blot dry. Cap electrode to protect membrane and turn off meter.

GLOBE Dissolved Oxygen Data Sheet and Field Guide: Using a Probe (page 2)

Dissolved Oxygen Data Table

	Probe Measurement	Salinity Correction Factor* (if needed)	Dissolved Oxygen (mg/L)
Test 1			
Test 2			
Test 3			

**Please refer to your manual for the procedure for your probe. If your water body salinity is less than 1 ppt (1000mg/L) this step is not needed.*

Stop and Check:

Are all measurements within 0.2 mg/L unit of one another? If not, continue taking readings until the last three are within 0.2 mg/L of one another.

Average Dissolved Oxygen: _____ mg/L

Comments:

GLOBE Dissolved Oxygen Data Sheet: Youth with Kit

Name: _____

Site Name: _____

Date: _____ Time (local): _____

Water State: ☐ Normal ☐ Flooded ☐ Dry ☐ Frozen ☐ Unreachable

If anything except Normal is selected, stop here!

Dissolved Oxygen Measurements

Test #1: _____ mg/L

Test #2: _____ mg/L

Test #3: _____ mg/L

Average of the three samples:

_____ mg/L

Stop and Check:

Are all measurements within 1 mg/L unit of the average? If one is not, average the other two measurements and report this average.

Notes:

GLOBE Dissolved Oxygen Data Sheet: Youth with Probe

Name: _____

Site Name: _____

Date: _____ Time (local): _____

Water State: ☐ Normal ☐ Flooded ☐ Dry ☐ Frozen ☐ Unreachable

If anything except Normal is selected, stop here!

Dissolved Oxygen Measurements

	Probe Measurement	**Salinity Correction Factor (if needed)**	**Dissolved Oxygen (mg/L)**
Test 1			
Test 2			
Test 3			

Stop and Check:

Are all measurements within 0.2 mg/L unit of one another? If not, continue taking readings until the last three are within 0.2 mg/L of one another.

Average Dissolved Oxygen: _____ mg/L

Notes: