

LAKE PARTNER PROGRAM – detailed instructions

Water Sampling Materials include:

- one 80 micron filter funnel (1)
- one small blue-capped sample jar (2)
- one sample collection bottle (3)
- two glass sample tubes (4)
- mailing labels, postage, Secchi observation sheet, etc.

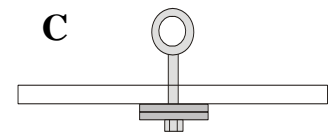
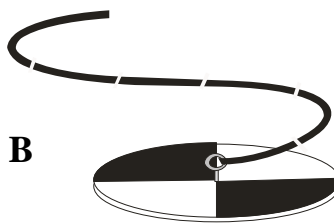


NOTE: You will need to supply some materials to make a collection bottle and Secchi Disk.

Before you go out:

1. Prepare the collection bottle by attaching about 6 meters of clean rope to the neck ring (**photo A**). Mark the rope off in metres. Duct tape the bottle to a suitable clean weight that is heavy enough to sink it. A metal *pipe cap* is shown in the photo below (**A**). *Keep your ropes and weights to attach to a new bottle that is supplied each year.*

2. Assemble the Secchi disk. The Secchi disk enclosed in your kit (for new volunteers) will need to have a rope attached marked in tenths of a metre (**photo B**). The rope length will depend on how clear the lake is. Lakes in Ontario have up to 10 metres of water clarity (usually 4-6 m). You will need to add an eye bolt (for the rope) and a few large washers or other suitable weight to the bottom (**photo C**). Some stores carry large square “dock hardware” washers that are ideal to use as weights. *Keep your Secchi Disk to use in following years.*



General

The lake location determines the number of total phosphorus water samples collected as follows:

- **Lakes on the Canadian Shield** are sampled for total phosphorus **once per year** during May. In this case you will receive only one set of sample bottles.

Secchi disk observations are made, ideally, twice per month (May to Oct). Record the Secchi depths on the enclosed observation sheet. *Refer to sampling instructions on the reverse side of the observation sheet.* In November, return the observation sheet to the Dorset Environmental Science Centre in the envelope provided.

At the Lake

Step 1. *Secchi Transparency Readings*

Use your Secchi disk to measure the water clarity and record the depth (in **metres**) on the observation sheet (see instructions on how to take a Secchi measurement on the back of the field observation sheet).

If you have a thermometer, take the temperature from just below the surface and record this on the observation sheet. **Keep** your observation sheet to make Secchi readings once or twice per month and return it to Dorset in November in the envelope provided.



Step 2. *Collect the Water Samples*

First, rinse the weighted sample bottle twice with surface water. Next, lower the weighted sample bottle down to the Secchi depth and back up to the surface to fill it. In shallow lakes, lower the bottle no closer than **1 metre** from the lake bottom.

Step 3. *Fill the Small Blue-Capped Jar*

Pour the water sample through the filter and rinse the small sample jar twice with filtered water. Then, fill the small sample jar with filtered water.

The filter components are held together by friction. If they come apart, reassemble the two halves with the filter screen between the upper and lower sections.

Write the sample date on the jar.



Step 4. *Fill the Glass Sample Tubes*

Repeat the sample process (Step 2) to collect water to fill the glass sample tubes. Rinse the tubes twice with a bit of filtered water before filling.

Fill to 1 cm above the etched line using filtered water.

Make sure the lids are screwed on snugly.

Step 5. *Mail the samples to Dorset*

Place the filter funnel, sample collection bottle, small blue-capped jar and glass tubes back into the box. Make sure the tubes are inserted back into the protective pipe wrap with the lids securely screwed on. Attach the address label and postage provided to the outside of the box. Seal the ends of the box with tape and mail to Dorset.

