# Water quality class activities

## Make a Secchi disk and measure turbidity

**Materials**

* Secchi disk template [link] – cut 3
* Heavy construction paper
* Pieces of string at least 2.5 m long – cut 3
* Black waterproof marker
* Clear sticky tape
* Thermometers (3)
* Metre rules (optional).

**Method**

Print and cut out the Secchi disk template (which looks like this):

Make 3

If you have a laminator, laminate them.

If not, use the template to cut a circle of construction paper the same size.

Use the sticky tape to completely cover and join the template and construction paper disks. Try to keep tape as smooth as possible without bumps or ripples.

Make knots in your strings at 10cm intervals and colour the knots black with the waterproof marker.

Attach the strings to the centre of each Secchi disk using tape.

**Measurement**

* At a local waterway, divide students into three groups and choose three locations to test (safety first!)
* Have them test the water temperature using the thermometer.
* Then have students lower their disks into the water, keeping them as flat as possible.
* Record the distance from where the disk can no longer be seen to the top of the water. (Metre rules could help with this, otherwise students must visually count knots.)
* Repeat this six times, to create six data points for each of the three locations (18 data points in all).
* Students should also record observations about the local environment to help with interpreting the data.
* Back in the classroom, make graphs of the data and discuss. Things to mention:
	+ Are the recordings expected or surprising?
	+ What sources might be contributing to the readings?
	+ Why might the temperature readings not reflect the overall temperature of the water body?
	+ What kind of life do they think can live in the water?