

Class:

Name:

Date:

Measuring Turbidity

Objective: In this activity you will learn a method to find a rough measurement of the **turbidity** (muddiness, cloudiness) of a water sample.

Materials:

- water sample
- two beakers
- ruler
- black and white disc
- stirring rod

Procedure:

- 1.) Place the disc on the bottom of one of the beakers, so that the black and white markings are facing up.
- 2.) Fill your other beaker with a sample from the bucket of solution your teacher has prepared. Be sure to take your sample from the surface; do NOT dip your beaker deep into the solution.
- 3.) Look straight down into the beaker containing the disc, shading it from light with your body. Watch the black and white disc while your partner SLOWLY pours the muddy water into the beaker.
- 4.) At the point when you can no longer see the black and white markings on the disc, tell your partner to stop pouring. Measure the depth of the water in centimeters by placing the ruler next to your beaker. Round your measurement to the nearest centimeter, and record your result in the table on the back of this page. If you can still see the disc and you have filled the beaker to the brim, record your result as greater than (>) the height of the jar.
- 5.) Pour the water back into the beaker originally used to take the water sample. Stir the water using the rod. Rinse the other beaker and the disc with clean water. Then repeat the experiment, switching roles with your partner.
- 6.) When you have finished taking measurements, return the water sample to the bucket and rinse off your equipment with clean water.

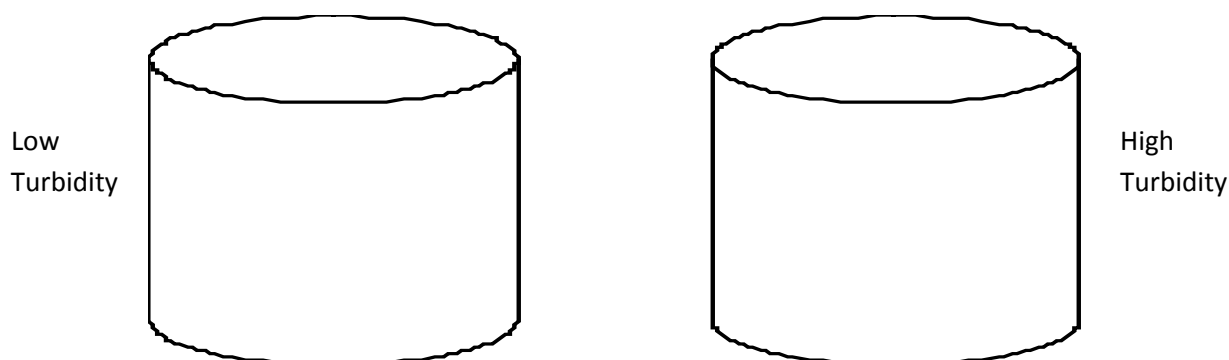


RESULTS

Test 1	Test 2

7.) How do your results from the two tests compare? If they are different, explain what might have caused the difference: _____

8.) Look at the beakers prepared by your teacher. Imagine they are cross-section views of a slow-moving stream. One beaker represents the bottom of the stream when it has low turbidity while the other beaker represents the bottom of the stream when it has high turbidity. Illustrate the two stream bottoms below:



9.) Based on your observations of the physical effects of turbidity on water and stream bottoms, develop some hypotheses about how turbidity affects the organisms living in Onondaga Creek:

