

School Made Sampling Field Studies Equipment

http://www.ccge.org/resources/learning_centre/classroom_activities/field_equipment.asp

1. Sounding Line

used to measure the depth of a water body.

Materials

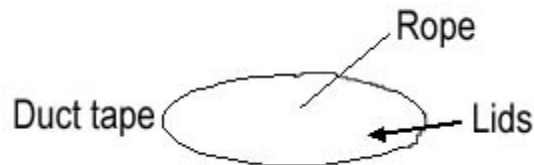
- ½ red construction brick
 - 4' eyebolt with nut
 - 2 washers
 - nylon cord
 - snap or clip
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- Use a hack saw to cut a complete construction brick in half.
 - Drill a hole in the brick using a masonry drill.
 - Place one washer on the bolt and put it through the hole in the brick, add the second washer and tighten the nut.
 - Securely attach the nylon cord to the snap or clip.
 - Mark the cord at one meter intervals to a length of 10 15 meters depending on the areas you plan to visit.
 - The clip on the line can then be attached to the eyebolt and also removed and used with other equipment.
 - Use: Lower sounder into water until it touches the bottom and record the amount of line sent down.

2. Secchi Disk

used to measure turbidity of water.

Materials

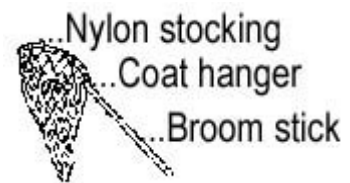
- 3 - 4 large aluminum can lids
- Place duct tape around edge.
- Drill a hole in the center
- Put rope through hole and secure
- Use: Lower secchi disk into water until it can no longer be seen. Record the depth. A more accurate reading can be found if this process is repeated several times and an average is taken. If the water is cloudy or has a large amount of suspended solids in it sunlight will not penetrate into the deep water.



3. Collection Nets

used to collect samples of organisms in water.

- nylon stocking or cheese cloth
- coat hanger
- broom stick
- Assemble items to create a net as shown in diagram at right



4. Coke Bottle Sampler

used to collect water samples for chemical tests.

Materials

- 32 ounce Coke bottle
 - 4 pound weight
 - epoxy
 - #2 single hole rubber stopper
 - 2' eyebolt with 2 nuts
 - 15' nylon cord
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- Mix epoxy and use it to attach weight to bottom of bottle.
 - Place one nut on the eyebolt and place it through the hole in the stopper.
 - Securely attach the other nut.
 - Tie one end of the cord securely to the neck of the bottle.
 - At 6', tie the cord to the eyebolt.
 - Tie a loop in the free end of the cord.
 - The sounding line is attached to the loop.
 - Use: Place stopper into bottle and lower to desired depth. Pull with a jerking motion on the cord to open bottle. Allow time for bottle to fill and bring sample up.

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