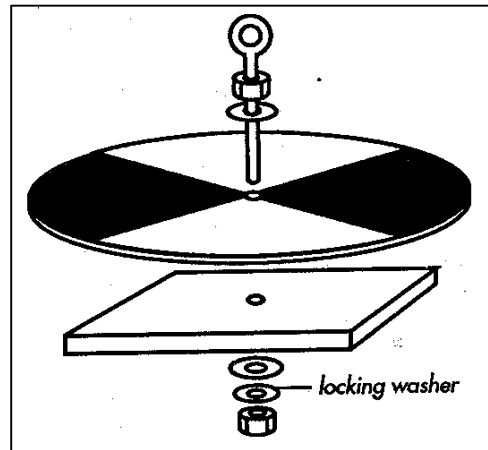# HOW TO MAKE A SECCHI DISK

MATERIALS:

- 20 cm diameter circle of acrylic disk 3/8" or 1/2" in thickness (aluminum or steel may be substituted, but wood is not recommended)
- 15 cm circle or square of 1/8" galvanized steel (used to weight the disk)
- hand drill
- eye bolt – 5/16" x 2"
- two flat 5/16" washers
- one locking 5/16" washer
- two 5/16" nuts
- flat black rust resistant spray paint
- flat white rust resistant spray paint
- masking tape
- nylon rope (cut long enough to be the depth of your lake deep spot. Avoid cotton rope because it stretches)

INSTRUCTIONS:

1. Divide the 20 cm acrylic disk into quadrants using masking tape. Spray paint alternating quadrants black and white, so that you have a disk that is similar to that pictured below. Let the paint dry. Apply a second coat of paint if necessary.

2. Drill a hole of 3/8' through the center of the acrylic disk and the galvanized steel disk.

3. Assemble disks with eyebolt (5/16" in diameter). Use flat washers between disk and nut, and between steel plate and locking washer. Use 5/16" nuts at the top of the eyebolt and to bolt the steel plate on the underside of the acrylic disk.

4. Attach a brass chain or rope calibrated by 0.5 meter increments to the secchi-disk to use in the lake.

   (Note: If rope is used, avoid using cotton rope or clothesline since it stretches when it is wet. Use non-stretching white plastic coated wire-core clothesline. Make sure to bend and straighten the line before you buy it to make sure that it will lie straight. Calibrate the rope at 0.5 meter increments using permanent pen, or by tying knots at each 0.5 meter interval.)

locking washer