

Sample preparation for observations with a light microscope

Materials needed :

- Plankton net (very finely meshed sieve or self-made; possibly optional)
- Plastic pipette
- Petri dish / microscopy slide

Procedure :

At most 24 hours before your observations:

1. Collect plankton from a body of water using a very finely meshed sieve or a plankton net.

Tip: Plenty of protocols on how to prepare your own plankton net can be found on the internet!

Note: As more plankton accumulates in the sieve, water will flow through it more slowly. Retrieve the accumulated plankton by pipetting the remaining water from the sieve into a container. Collect around 20 mL of sample.

Recommended step: Collect some water from your chosen body of water (a nearby pond or stream) and directly view it under the light microscope. This is a good pilot test to assess the plankton density of the body of water and can give hints to whether concentrating the plankton using a net is necessary or not.

2. Transfer your sample into a Petri dish or onto a microscopy slide using a plastic pipette. If you use a Petri dish, either:
 - a. Fill the entire Petri dish with the sample until you have a convex meniscus on top. Flip the lid of the Petri dish over and slowly cover the Petri dish.
 - b. Alternatively, cover the bottom of the Petri dish with a thin layer of the sample you have prepared.

Note: During this process, some sample leakage is possible. Keep a tissue around the Petri dish to clean the workspace.

3. Place the Petri dish or the microscopy slide on the sample holder of your light microscope. Your sample is now ready for observation.

