

Underwater Viewer (Bathyscope)

Explore underwater worlds and discover what lives there without having to interfere with any critters by catching them. Using an underwater viewer, called a bathyscope, allows you to look into water by cutting out the surface glare. Your viewer is best used in shallow water, such as a stream, small pond, lakeshore or even a bit of standing water (you'll likely find mosquito larvae there).

Here's how to make a simple, small bathyscope. Once you understand the basics, you can make a scope sized and shaped to suit you from materials you have on hand.

Supplies:

- 540ml tin can with both ends removed (make sure there are no exposed sharp bits)
- Clear plastic such as a cling wrap
- Elastic band

Steps:

1. Stretch the clear plastic over one open end of the tin can. Make sure it is taut and wrinkle-free.
2. Secure the clear plastic to the tin with an elastic band so that it is water-tight.
3. Your scope is ready for underwater exploration and you won't even need to get wet.

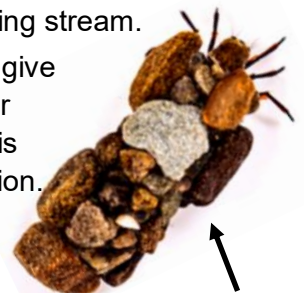


Push the plastic wrapped end into the water just a few centimetres and see what you can observe through the other, open end. Keep a firm hold on your scope and be safe when near water.

You will be able to see different underwater animals depending on the type of underwater habitat you are looking at, for example mosquito larvae are more likely in a still pond versus a moving stream.

The types of critters you find in a habitat can also give you clues about the health of the environment. For example, if you find a caddisfly nymph, the water is very clean. Caddisflies are very sensitive to pollution.

Make some sketches or notes about what you see. Try to identify the creatures using aquatic animal guides.



Caddisfly Nymph in its stone casing.

Download an ID flowchart here [Aquatic Invertebrate Sorting Guide](#)

There is ID help here [Online Aquatic Insect Identifications](#)

Find engaging pond study questions at [Waterloo Region District School Board](#) to expand your explorations.