

Macroinvertebrate Sort

Adapted from [Nature-At-Home by the Michigan DNR](#)

Grades K-12

Students take a water sample and sort aquatic organisms by type.

Materials:

- Large white bowl (or white plastic wading pool for large groups)
- White ice cube trays, one per pair of students
- White plastic spoons, one per student
- Small net or plastic cups
- Paper and pencil (grades 6-12)
- [Dichotomous Key](#) (grades 6-12)



Procedure:

1. Go to maeoe.com/mipines and use the MiPINES Map to find a nature space that has a small pond, or shallow stream. Get prepared to take your students off-campus. Set clear and firm expectations for being safe and smart outside.
2. Alternatively, watch a video version of these instructions at this link: <https://youtu.be/NrWpbVz26BA?list=PLAt8-P23ZJguuMKB5q5jD-5sDFcKa5ut2>
3. At the site, tip your large bowl or pool into the water body you are sampling from, and fill it with water halfway. Once filled, place far enough from the shoreline that students can circle around it.
4. Have a student volunteer use the net to scoop up materials from the shoreline. If sampling from a flowing body of water, stir up the bottom and angle your net so that water flows into it.
5. Scoop the contents of the net into your bowl. Gently shake the bowl to get organisms moving.
6. Students dip their ice cube tray into the water body you are sampling from, filling halfway.
7. Using their spoons, students carefully scoop up organisms and sort them by type in the ice cube tray or plastic cups.
8. Students can jiggle the bowl, and flip over leaves and sticks to find organisms that camouflage and hide.
9. For grades 6-12, students sketch one of the macroinvertebrates in their sorting tray. Then, they use a dichotomous key to determine the type of macroinvertebrate they discovered. A printable version of a dichotomous key can be found at this link: www.seetolearn.weebly.com/uploads/4/6/7/4/46744079/key-lettersize_compressed.pdf