Macroinvertebrate presence is a great way to determine water quality in streams and rivers. These activities are a fun way to get out into nature and learn about the water quality of your local waterbodies!

Materials:

Fish net

Tweezers

Ice cube tray or paint tray

Pipette or spoon

Identification card (included)

Paint brush

White cup/ plastic container

Method 1:

- Gather some water in the white container.
- To find macroinvertebrates, pick up stones on the waters bottom
- Flip the rock over, and using the paintbrush, gently brush bugs into the container of water.

Method 2:

- Using the fish net, gently swoop through the water close to the bottom.
- Carefully dump the contents into the container of water.
- Use the pipette or spoon to sort the macroinvertebrates into the ice cube or paint tray

Extensions:

- Make a graph of the macroinvertebrates you found to determine dominant species.
- Take weekly samples to determine fluctuations in species.
- Using the guide below, identify the nymph type and locate the different anatomical structures.

Identification Key

Species which can only live in unpolluted waters:

Stonefly (larvae)

Caddisfly (larvae)

Note: Caddisfly larvae will often be seen in "cocoons" created from sticks or small pebbles (see below)

Mayfly (larvae)

Species which can live in unpolluted and semi-polluted water:

Damselfly (larvae)

Dragonfly (larvae)

Anatomy of Macroinvertebrate larvae