

***Teacher Instructions***

**Purpose:**

Students evaluate the physical characteristics and resulting habits of macroinvertebrates, which are beneficial in their adaptation to a fresh water stream environment.

**Student Objectives:**

- o Describe a typical stream system.
- o Compare the major stream habitats in a stream system.
- o Distinguish physical features in illustrations of macroinvertebrates, which facilitate meeting the organism's need for food gathering, protection, and acquisition of shelter.
- o Classify preserved specimens according to food-gathering technique.

**Materials:**

- o [Stream Ecology Background Information](#)
- o [Ecological Adaptations of Stream Benthic Macroinvertebrates](#)
- o Field guide such as the TNRCC's "A Guide to Freshwater Ecology" or Fotheringham's "A Beachcomber's Guide to Texas Gulf Coast Marine Life"
- o Preserved specimens from field

**Preparation:**

- o Review stream ecology background information.
- o Print copies of the adaptation chart for student use.
- o Study physical characteristics of macroinvertebrates, which facilitate niche adaptations.

**Facilitating the Activity:**

- o Use the Stream Ecology Background Information to assist the students in describing a stream system and comparing abiotic and biotic factors.
- o Assist with class and group discussion, so that students will distinguish physical features of macroinvertebrates, which facilitate meeting the organism's need for food gathering, protection, and acquisition of shelter.
- o Monitor small groups as preserved specimens are classified as to food-gathering technique.

**Student Evaluation:**

After group discussion, students will correctly classify preserved macroinvertebrates as to food-gathering technique.