

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute 1993 Volume V: Environmental Science

The Mill River: An Outdoor Laboratory

Guide for Curriculum Unit 93.05.01 by Lise Orville

This unit is designed for 9th grade physical science classes and 10-12th grade chemistry classes. The emphasis is on using chemistry as a tool to figure out what is happening in the waters of the Mill River. Although the unit is specific for one local river, it can obviously be modified for other rivers and lakes.

Students will start by studying the properties of water. Then they will try to solve the mystery of a massive fish kill in the mythical Snake River (ChemCom textbook). Next we will visit the Whitney Water Center to do some real Mill River water testing. This will be followed by a map survey of the New Haven Quadrangle map. Finally, we will take field trips to the river to test for the following parameters: dissolved oxygen, temperature, pH and conductivity (dissolved ions). All these tests will be learned in the lab before we venture outdoors. Another indicator of stream health that we will survey is the macro invertebrate population of the river.

At the end of the unit the classes will tabulate all results into a report which will be presented to the Regional Water Authority.

(Recommended for Chemistry, Grades 10-12, Earth Science, Grade 8 and Physical Science, Grade 9)

Key Words

New Haven Connecticut Mill River

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