

## OVERVIEW: W.A.T.E.R.S.H.E.D. CONNECTIONS

(WATER ACTIVITIES TEACHING ENVIRONMENTAL RESOURCE SUSTAINABILITY IN HABITATS ENCOMPASSING THE DELAWARE)

### Activity 1 - What's Your Watershed Address?

Plan your project by mapping small watersheds within the larger Delaware River Watershed and plotting possible human influences on them.

### Activity 2 - Water Quality Limbo: How low can you go?

Learn how to measure small amounts and discover exactly what  $\mu/L$ , mg/L, ppm and ppb mean, then play a game of limbo to show how humans can raise or lower water quality in a watershed.

### Activity 3 - Getting To Know Groundwater: The Underground Water Works

Identify more human influences on water quality and use a groundwater model to demonstrate the effects of those human influences.

### Activity 4 - Nonpoint Source Pollution, Nutrient Overload And Land Use

Learn about nutrient loading and how various land uses can affect water quality. Identify sources of nonpoint pollution within a watershed and learn how they affect water quality.

### Activity 5 - Who's Doing What and Why Test for That?

Become familiar with the traditional water quality testing and learn about the monitoring programs of local agencies and why those programs are important.

### Activity 6 - Fluvial Geomorphology: Going with the Flow

Learn how to measure water flow, why flow levels are important and how streams and rivers develop their watercourse.

### Activity 7 - Aquatic Critters

Identify common macroinvertebrate and fish species and learn why their monitoring helps determine water quality.

### Activity 8 - Algae, SAV's and Emergents - the Aquatic Plants

Identify aquatic plants and discover why their absence or presence and quantities relate to water quality.

### Activity 9 - The Alien Invasion

Learn what foreign species are crowding out the natives, decreasing biodiversity, and what can be done about them.

### Activity 10 - Watershed Interactions: Decisions, Decisions

Debate a real-world watershed issue to discover more about social, political and economic influences on water quality.

### Activity 11 - A Watershed Code of Conduct

Students develop their own code of environmental ethics for the watershed, to be used not only during field work, but also in their daily lives.

### Activity 12 - Action Projects: What's Next And Where Do We Go From Here?

Plan an action project to further your studies and put what you've learned to use.

**Note:** These activities are based on projects/curricula already available such as Project WET, Wonders of Wetlands, Aquatic WILD, etc., but the purpose is to adapt those curricula to make them specific to the Middle and Upper Delaware River Watershed.