

CWC Watershed Education Grant -- Round 17 Special Options

Proven programs to introduce or expand upon Watershed learning in your classroom or community!

Schools and organizations without an original proposal for a Watershed Education Project may seek funding for one or more of the following programs in order to enhance their water-related curriculum. *Applications are competitive and funding is not guaranteed.* Please consult Applicant Guidelines for specific directions on how to incorporate Special Option requests into your proposal.

Before applying for a Special Option, please consult the provider's website, or contact them for more information about program content, pricing and availability.

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"City That Drinks the Mountain Sky," by Arm-of-the-Sea Theater

www.armofthesea.org, liveart@armofthesea.org, 845-246-7873

This lively, large-scale theater production tells the epic story of New York City's water supply system. The show features hand-painted sets, dozens of mask and puppet characters and live music. It has received rave reviews at schools and festivals throughout the region. Arm-of-the-Sea Theater has been producing high quality arts-in-education programs for more than 25 years. This is one of their most successful shows. Study guide and post performance discussion included with each school-day performance. **Please contact them in advance to determine whether your venue can accommodate this large scale show.**

WOH Watershed: \$1,250 for one show; \$1,600 for two shows at same location
NYC: \$1,450 for one show; \$1,750 for two shows at same location

Catskill Mountain Music: Performances by Ira & Laurie McIntosh

www.catskillmountainmusic.com; storylaurie@gmail.com; 845-676-4727

"Groovin' in the Garden" (Solo program)

This program allows children to sing about, hear and understand the vital connection between food and healthy soil and water. Stories and songs explain plant life cycles, pollination, and the value of local farms and sustainable agriculture; can also include a component on regional geography and waterways. Song-writing workshops also available. For grades PreK-6; program length 30-60 minutes; addresses Common Core curricula for Science, Social Studies, Arts & ELA.

WOH: \$300 (plus travel) for 1 assembly or 2 classroom performances; \$500 (plus travel) for 2 assemblies or 3-5 classroom performances

NYC: \$600 for 1 assembly or 2 classroom performances; \$725 for 2 assemblies or 3-5 classroom performances (Travel included)

"Twist & Trout" (Solo program)

The perfect way to kick off or wrap up your school's Trout in the Classroom project. Rollicking good sing-alongs (such as "Animals Need Water" and "Save Some Streams for Us, Mister") combine with Ira's infectious style, excellent musicianship & natural ability for teaching without preaching. For grades PreK-6; program length 30-60 minutes.

WOH: \$300 (plus travel) for 1 assembly or 2 classroom performances; \$500 (plus travel) for 2 assemblies or 3-5 classroom performances

NYC: \$600 for 1 assembly or 2 classroom performances; \$725 for 2 assemblies or 3-5 classroom performances (Travel included)

"Catskill Tales & Tunes" (Solo or duo program)

Catskill Tales & Tunes is a 45-60 minute classroom or school assembly program of songs and stories that focus on the rich environmental and social history of the Catskills and New York City watershed region. The program, which includes a teacher guide with suggested discussion questions, is designed for grades 4-8 and meets New York State learning standards for Science, Social Studies, and the Arts.

1 Assembly or 2 classroom performances West-of-Hudson: Solo -- \$300 plus travel; Duo -- \$450 plus travel; NYC: \$600 solo, \$800 duo

2 Assemblies or 3-5 classroom performances West-of-Hudson: Solo -- \$500 plus travel; Duo -- \$750 plus travel; NYC: \$725 solo, \$900 duo

Streamwatch

A program of the Catskill Center; www.catskillcenter.org, nmcshane@catskillcenter.org
845-586-2611

Hands-on stream exploration for public schools, home-school groups, scout troops or other youth groups within the West-of-Hudson Watershed. Participants learn to make observations about water quality based on physical, chemical, and biological data. Biological Data Collection: Identify macroinvertebrates that serve as biological indicators of water quality. Chemical Data Collection: Complete chemical testing for dissolved oxygen, percent saturation, and pH. Physical Data Collection: Velocity, turbidity, and temperature. Combining this data can help us discover clues about the water quality and health of the ecosystems we live in. The Catskill Center will provide knowledgeable staff, water sampling kits, and all necessary equipment and supplies. *School or program site must be near stream.*

Program includes one in-school visit of up to 6 classes, and one streamside visit. \$500 total.

The Ashokan Center

Olivebridge, Ulster County; www.ashokancenter.org, oeprogram@ashokancenter.org
845-657-8333

The Ashokan Center offers a Watershed, Science and Sense of Place curriculum that utilizes the facility's proximity to the Ashokan Reservoir. The classes are geared for elementary through high school students and are aligned with the Common Core standards. Students are immersed in nature on a 375-acre campus along the Esopus Creek as they make natural history observations, collect authentic ecological data, write in their sense of place journals and discuss the use and conservation of natural resources. Classes include: *Water Quality Assessment, Aquatic Ecology, Native Plants & Pollinators, Field Ornithology, Stewardship Service Learning, Forest Ecology, Animal Tracks and Traces, Hike to Cathedral Gorge, 19th Century Writers Cabin, Lenape Village.* Note: CWC does **not** pay for Ashokan's colonial history programs.

A three-day, two-night residential program (5 educational programs, 4 recreational periods, 7 meals, room, including overnight dorm supervision) is approximately \$240 per person. A one-day, two-three program visit is between \$28.50 - \$34.50 per person. Additional evening programs may be available. Call for descriptions and prices.

Trout in the Classroom, a program of Trout Unlimited in partnership with NYC DEP www.troutintheclassroom.org, igenovesi@tu.org, (917) 832-0857

Raise trout from eggs to fingerlings in a classroom tank while learning about the NYC watersheds and water supply system. Students monitor fish development and water quality, then plan a trip to a watershed stream to release the trout. A high level of commitment is required all year long, from tank set-up in September through release of trout in the spring. \$1,300 purchases a 55-gallon tank and all equipment (chiller, water conditioners, filter, pump, teaching aids etc.). Separate funding is needed for transportation to bring students to an approved trout release site in either the East-of-Hudson or West-of-Hudson watersheds. (*Apply to CWC for WOH travel costs; Watershed Bus Tour Grant Program for EOH travel costs.* http://nycwatershed.org/for_bustours.html). Year-long support is available from the NYC and Watersheds TIC Coordinator who coordinates the Fall TIC teacher conference in October (which features hands-on workshops and trout egg distribution by the DEC) and arranges for permits for spring trout releases.

Frost Valley YMCA Environmental Education Center

Claryville, Ulster County, www.frostvalley.org, beddings@frostvalley.org
845-985-2291 ext. 213

Frost Valley offers 11 science- and water-related programs including: Pond and stream ecology, wildlife, wilderness, or geology nature hikes, a Model Forest tour, water quality testing, acid rain study for students from elementary through high school level. (*CWC does not pay for Frost Valley's team-building or recreation programs.*)

A three-day, two-night stay ranges from \$146-\$186/person (students and chaperones) and includes room, board, six educational day programs and two evening programs. One-day trips with one or two water- and science-related programs are \$11 per person per program; \$6 additional cost per person for lunch for day groups. There are two-day, one-night options as well as longer stays available. Scholarship assistance is available through an application process. Additional evening programs may be selected as well. (Call to determine rates.)

Also available: One-day Model Forest Tour with two related programs to help students understand the relationship between water quality and working forest landscapes: \$22 per person.

Water Quality Teaching Aids

Trouble in Fruitvale

- Groundwater contamination kit: \$395 (includes teacher's manual, add 10% shipping). Available from Lab-Aids, Inc., <http://www.lab-aids.com>, 800-381-8003

Explore earth science concepts such as the water cycle, map-making and interpretation, and groundwater pollution with this module. These concepts are used in an investigation of groundwater contamination in the fictional city of Fruitvale. Students design and carry out a plan for testing water from different parts of the city to determine the contamination's source, severity, extent, and rate of travel. The data is used to analyze the risk to Fruitvale's water supply. Students then read about several clean-up options and participate in a role-play of a town meeting to decide which option to use. Materials come in a storage box; initial setup enough for use by 35 students.

Enviroscape Models

Available from EnviroScape, www.enviroscapes.com, learn@enviroscapes.com, 703-631-8810, x12

- Watershed/Non-Point Source/Stormwater Model: \$1,045 with tote and shipping

This unit includes nonpoint source landscape top (topographical map) with storm drain pipe, clear base, houses, barn, factory, treatment plant, trees, cows, cars, buffer strips, clay berms, manure container, soil, oils and chemicals (cocoa, drink mixes and oil mix), bridges and User's Guide. Two waterways flow into a larger water body, which is representative of a lake, river, bay, or ocean. The unit comes with a kit containing everything you need to demonstrate the movement of water through a watershed and the pollution that runoff may cause.

- Drinking Water Sources/Wastewater Treatment Model: \$1,247 with tote and shipping

This unit shows where drinking water (residential and commercial, rural and urban) comes from and how it is delivered to us; what happens to water and waste after we use it (how sewage/wastewater is treated); and what biosolids are and how they are being used or disposed.