

B: Bird's Eye View	Interdisciplinary Yearlong Watershed Exploration Unit Patricia Hurlburt and Megan Wellford
Essential Question	What are the stories of our watershed?
Enduring Understandings	Students will: <ul style="list-style-type: none"> * Experience the natural, recreational, and cultural resources of the Ausable River and Lake Champlain Basin * Connect with the history and geological origins of the local region. * Understand that their actions impact the ecological and economic sustainability of the larger watershed and beyond * Meet with experts and conduct research to practice authentic inquiry related to social studies, science, and english language arts. * Collaborate and engage in feedback from and with peers in multi-age teams to build and share their expertise with the community.
Pre-Intro Writing Task	Ask students to write about the ways they interact with their watershed and compile data before the introductory lesson
Introductory Lesson	How do we really get to know a watershed? Present a brief overview of stories of how the students use their watershed; Pair students based on their writing task; Define event map, Display exemplary event maps, review rubric (Making a Map: Local Watershed Event Map) Mapping - Create an event map of the Beaver Pond behind KCS, invite David Thomas-Train and Sheri Amsel
Lesson # 1	How do the resources found in our watershed impact our local economy? Hike Rattlesnake Mountain to become immersed in the geology, nature, and tourism-driving recreation of the local area, then tour Essex Farm to participate in and learn about a sustainable model of agriculture
Lesson # 2	Where does water go after it leaves Keene Valley? “Trip of the Drip” - Use our knowledge of maps to trace the trajectory of a water droplet from Lake Tear of the Clouds to the Atlantic (in classroom)
Lesson # 3	What is the geological story of the Lake Champlain Basin? How do the properties of water impact the lake's economy? Take ferry to ECHO Museum to participate in two educational programs. 1) <u>Rock and Roll Geology</u> : Explore 20,000 years of geologic history in the Lake Champlain Basin. Discover the forces that shaped the land we see today and perform rock tests to identify some common local rocks. Walking Geological History Timeline Activity from <i>This Lake Alive</i> ahead of time Ninth Grade Timeline in hallway after trip (processing)
Lesson #4	What causes pollution in the watershed? Enviroscape Demonstration table, readings from LCBP reading room

Lesson #5	What impact did local events have on the course of American history? Expert visit from high school history teacher to share the details of the battles of Plattsburgh and Valcour Island
Lesson # 6	How do we use artifacts to interpret the past? Archaeological dig presentation at Chimney Point Historic Site, Historical visit to Crown Point
Lesson # 7	What is the natural history of the Adirondacks? Expert author visit from Mike Storey, author of <i>Why the Adirondacks Look the Way they Do</i>
Lesson # 8	What can we do to share the stories of our watershed with the community and encourage others to help protect this resource? Brainstorm Science Slam Project ideas, combine with World Water Day project
Lesson # 9	What is the natural history of the Adirondacks? Expert author visit from Mike Storey, author of <i>Why the Adirondacks Look the Way they Do</i>
Lesson # 10 (Science Slam Projects)	How can poems about water spread our “protect the watershed” message to a wider audience? Use poetry seminar guidelines from www.water.org, which may be found here: Water Poetry Lesson & Exemplars Students use their personal experiences from this year’s watershed study and personal experience to craft a poem celebrating water to copy onto a quilt square. The quilt will eventually contain a border encouraging people to protect the Lake Champlain Watershed. The quilt will be a permanent exhibit in the elementary hallway of Keene Central School, which is a community meeting place.
	How did the community respond to Tropical Storm Irene? Science Slam: Documentary Team Road to Recovery Documentary
	How can we display the stories we have learned throughout the year in a way that encourages others to protect the Lake Champlain Watershed? Science Slam: Display Team
	How can the students of KCS encourage the local politicians to protect the watershed by preventing pet waste from contaminating our watershed? Science Slam: Pet Waste Disposal Proposal Team (Citizen Science) Pet Waste Disposal Proposal (Student Work)
	What are the major sources of pollution in a watershed and what can be done to mitigate them? Science Slam: Enviroscope Demonstration Team
	How can we share our experiences with a wider audience? Science Slam: Website Protect Our Watershed Website Link
	Science Slam: Aquatic Species or Environmental Posters (Third Graders)

	World Water Day field trip (optional) - Guest speaker Rachael Miller from the Rozalia Project: Saving the Ocean from Pollution
Lesson # 11	What is the story of invasives in the Saranac Lakes? What do they look like? How are they well-adapted for survival? How do they get here? What can be done to stop them? Field trip on Lake Flower with Kathleen Wiley of the Paul Smith's College Invasive Aquatic Species Floating Classroom
Lesson #12	What is the story behind the fire towers of the Adirondacks? Visit the Elizabethtown Museum, then participate in a guided hike of Pok-O-Moonshine Mountain
Lesson # 13	What can I do to help scientists track migratory birds? Site visit to Crown Point bird banding program
Lesson # 14	What is the geological story behind the formation of Ausable Chasm? How is it important to the area's recreational economic story? Students tour Ausable Chasm and take a rafting trip down the river.
Culminating Activities:	<ul style="list-style-type: none"> * Create a quilt to display ideas for protecting the watershed, featuring water-inspired poetry and illustrations from each student. * Citizen Science Project to convince the town of Keene to install at least four pet waste clean up stations around the school and on town recreational trails. If this proposal passes, we will be involved in installing the stations and creating educational signage to encourage pet owners to use the stations. Pet Waste Disposal Proposal * Documentary to publicize community's response to Tropical Storm Irene - post on website, broadcast on Channel Six, local TV stations, etc. Road to Recovery Documentary * Stewardship - Watershed pollution awareness projects/games/activities to teach the community about protection at the Science Slam, including Enviroscape presentations, posters about aquatic life in Ausable River, Clean up the Lake Game, creative quilt squares to celebrate water poetry, etc. * Create website to share adventures and efforts to explore and protect the watershed Protect Our Watershed Website Link, http://protectourwatershed.weebly.com/ * Bird Banding <p>Other Ideas:</p> <ul style="list-style-type: none"> * Send water sample to APIP * Dramatic Timeline Reenactment and watershed poetry presentations for the Community at the Poetry Party - Share with NCPR, newspapers, TV stations * Stewardship: Riverbank Erosion Awareness displays for the community at the Science Slam * Trout Unlimited Project