


Sweet Water Hunt

An interactive,
watershed
education novel

by

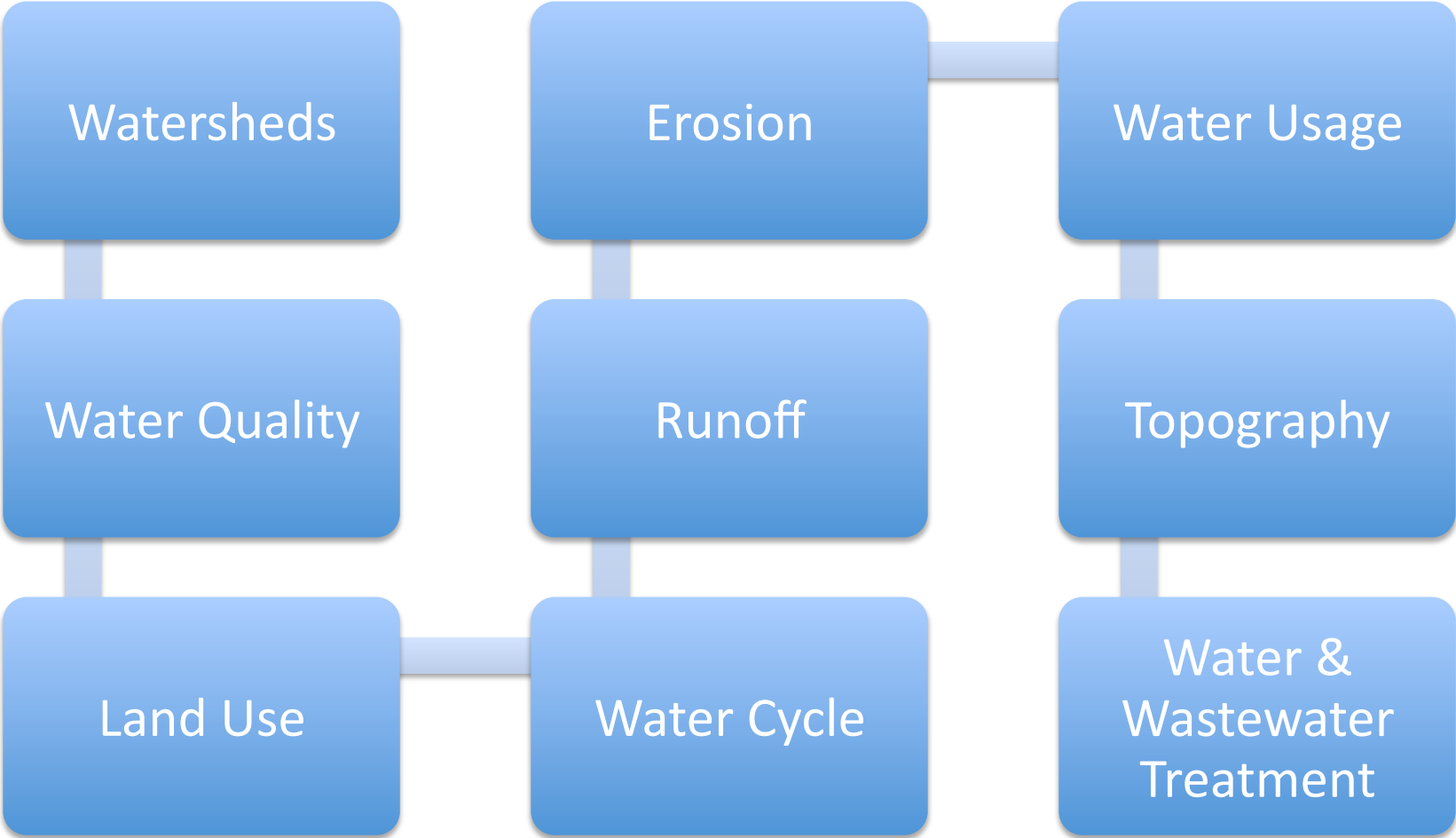
Connie Nye



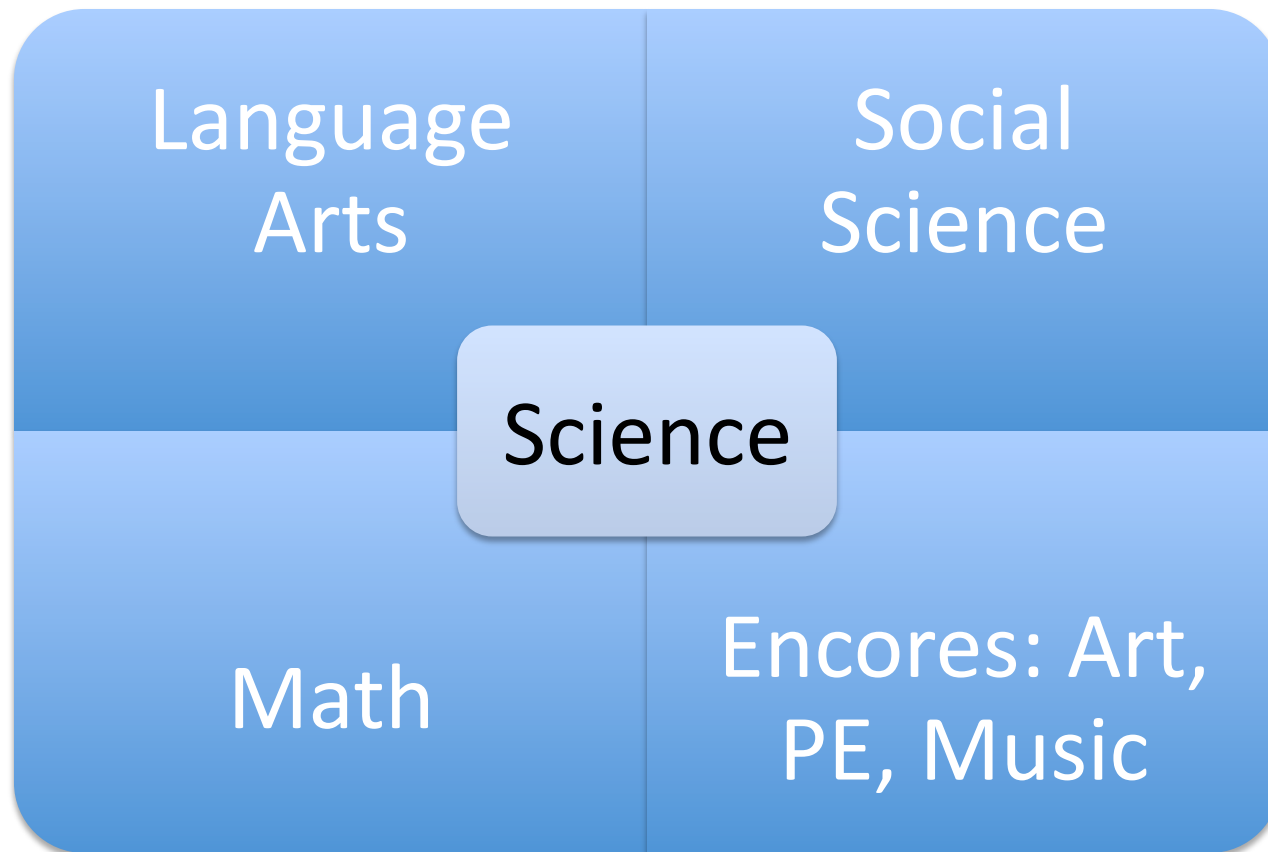
Sweet Water Hunt

The hunt is on. While playing on a beautiful summer day, Wyatt Nystrom and his dog, Benny, find a tennis ball with a mysterious message. The ball is just the hook to get kids like Wyatt and his cousin, Danni, involved in a journey upstream to unravel the madness of the Brandywine. With the help of “creek pals” throughout the watershed and numerous hands-on activities throughout the story, Wyatt and Danni discover a community of natural wonders, scientific studies, folklore, and crazy characters, all brought together by a remarkable creek. This is a story that not only engages the reader with its plot, but also with its interactive approach. It’s a novel and an entertaining way to learn about watershed science.

Created to teach watershed dynamics



Interdisciplinary



Science

- 🦟 Watershed dynamics
- 🦟 Nocturnal nature
- 🦟 Astronomy
- 🦟 Landfills
- 🦟 Meta-morphosis
- 🦟 Adaptations
- 🦟 Scat
- 🦟 Agriculture



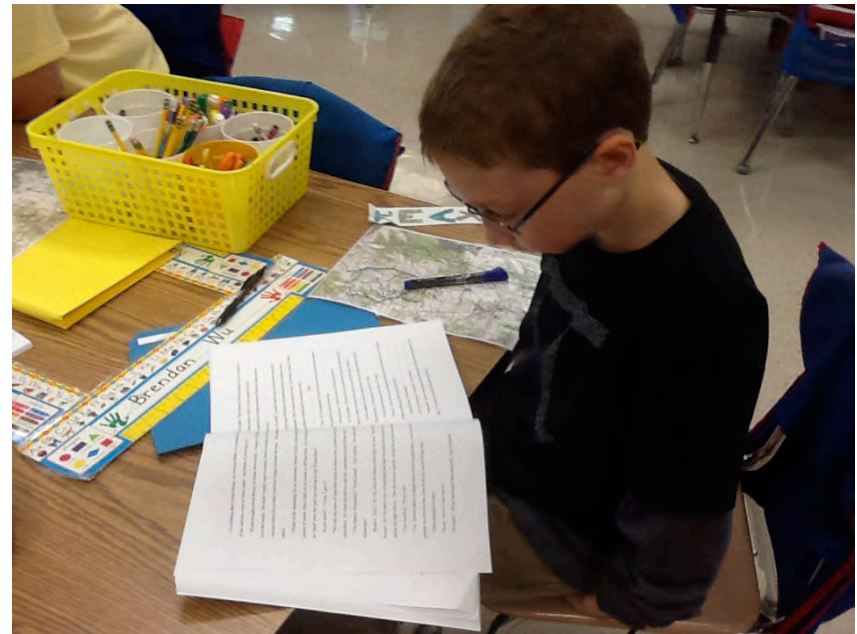
Social Science

- ✿ Colonization
- ✿ Map reading
- ✿ Landforms
- ✿ Water bodies
- ✿ Municipalities
- ✿ History
- ✿ Lenape Indians
- ✿ Local folklore
- ✿ Revolutionary War (Battle of the Brandywine)
- ✿ Underground railroad
- ✿ Local industries past and present (i.e. DuPont, Lukens)



Language Arts

- 🦋 Letter writing
- 🦋 Lenape language and prophecy
- 🦋 Symbolism
- 🦋 Ted Browning's essays
- 🦋 Picture books



Math

🦟 Physical measurements of stream: width, depth, velocity, volume of flow

🦟 Bat Math

🦟 Light Year Math



Encores

- 🦋 Art: Rain barrel painting; Wyeth country; crayon rubbings
- 🦋 Music: Scat Rap; classic oldies
- 🦋 Physical Education: hiking; canoeing



Interactive

Map It! Check It Out! Sticker It! Try It! Field Trip!

Knuckle Mountain:

A simple way to understand contour lines on topographic maps.

Hands-on, literally!



Interactive

Map It! Check It Out! Sticker It! Try It! Field Trip!



Looking at aerial
views of the
watershed to
see
development

Interactive

Map It! Check It Out! Sticker It! Try It! Field Trip!

Getting ready to catch macroinvertebrates



Chapters & Field Trips



Field Trip Opportunities

- ✦ Kalmar Nyckel replica ship
- ✦ Brandywine Park/Brandywine Zoo
- ✦ Alapocas Woods Park
- ✦ Hagley Museum
- ✦ Brandywine Creek State Park
- ✦ Brandywine River Museum
- ✦ Longwood Gardens
- ✦ Brandywine Battlefield
- ✦ Myrick Conservation Center (Brandywine Valley Association)
- ✦ Stroud Preserve
- ✦ Chester County Historical Society
- ✦ Embreeville/ChesLen Preserve
- ✦ The Laurels
- ✦ Paradise Farm Camps
- ✦ Struble & Uwchlan Trails
- ✦ Water and Wastewater Treatment Plants
- ✦ Lukens National Historic District
- ✦ Saalbach Farm (Brandywine Valley Association)
- ✦ Marsh Creek State Park
- ✦ Hibernia & Springton Manor County Parks
- ✦ Struble Lake
- ✦ Lanchester Landfill

Sweet Water Hunt Book Club: The Pilot Program at Beaver Creek Elementary



Sweet Water Hunt Book Club Pilot Program

- ✿ Beaver Creek Elementary after-school book club
- ✿ Directed by Connie Nye
- ✿ Led by high school juniors from the STEM Academy
- ✿ Weekly club from September through May
- ✿ 5 field trips taken
- ✿ 2 rain barrels produced
- ✿ Pre to Post Assessment:
 - ✿ 4th graders' scores rose by 41 %
 - ✿ STEM juniors' scores rose by 22%.

Kalmar Nyckel

Students went for a ride on this replica of the first ship to bring settlers to Wilmington to hunt for beaver pelts



Hagley Museum



Seeing how
water was
harnessed for
power to make
gunpowder by
the du Ponts

King Ranch/The Laurels



Where Buck
and Doe
Runs merge,
heading to
the West
Branch of the
Brandywine

Downingtown Municipal Water Authority & Downingtown Regional Water Pollution Control Center



Inside at the water treatment plant



Downstream at the wastewater
treatment plant

Lanchester Landfill



A view of the
Brandywine
Watershed

Rain Barrels Service Project

Sweet Water Hunt is a perfect springboard for students to implement stream quality service projects

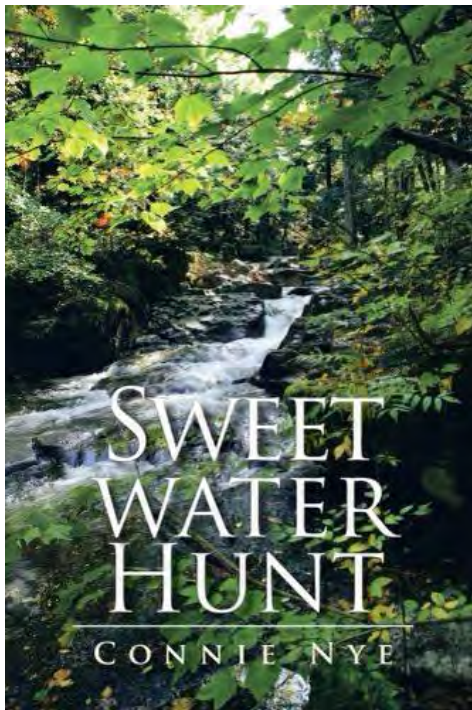


Rain barrels conserve water and help reduce runoff



The Ultimate Watershed Learning Experience

- 🦋 Read Sweet Water Hunt
- 🦋 Participate in a Red Streams Blue Program



+



BRANDYWINE CREEK WATERSHED

Impaired Streams based on 2010 Pennsylvania Integrated Water Quality Monitoring and Assessment Report



What is the Red Streams Blue Program?

- The streams that do not meet water quality standards are shown in red. Blue streams meet the standards.
- The goal of the Red Streams Blue Program is to ensure that all streams in the Brandywine Watershed meet Pennsylvania water quality standards.

Why is the Red Streams Blue Program so important?

- The Brandywine Creek is the drinking water source for much of Chester County as well as Wilmington, Delaware.
- The Brandywine Creek provides recreation for many residents, including fishing, kayaking and swimming.
- The Brandywine Creek and its tributaries provide habitat and natural corridors for wildlife.
- The beauty of the Brandywine Watershed is an important natural resource.

Background of Pennsylvania's Assessed Waters Program

The Commonwealth of Pennsylvania has an ongoing program to assess the quality of waters and identify streams and other bodies of water that do not meet water quality standards as impaired. Water quality standards are comprised of the uses (including anti-degradation) that waters can support and goals established to protect those uses. Periodic reports on the quality of waters are required under section 305(b) of the federal Clean Water Act. Section 303(d) of the Act requires states to list all impaired waters not supporting uses even after appropriate and required water pollution control technologies have been applied.

Mapping Support Provided by

Chester County Water Resources Authority
 CHESTER COUNTY - PENNSYLVANIA
 681 Westman Road, Suite 200
 P.O. Box 2747
 West Chester, PA 19380-0282
 August 16, 2011



Sources
 Pennsylvania Department of Environmental Protection, 2010.
 2010 Pennsylvania Integrated Water Quality Monitoring and Assessment Report (http://www.dep.state.pa.us)
 Chester County Bureau of Land Records, 2011.
 Brandywine Valley Association, 2011

Disclaimer

The goal of this document may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, except as expressly permitted by the County of Chester, Pennsylvania.

This map was digitally compiled for internal administrative and dissemination use by the County of Chester, Pennsylvania to provide an index to permits and/or other reference purposes. Permit lines do not represent actual field surveys of permittees. County of Chester, Pennsylvania makes no claims as to the completeness, accuracy or content of any data contained herein and makes no representation of any kind, including, but not limited to, the warranties of non-infringement or fitness for a particular use, nor any such warranties to be implied or inferred, with respect to the information or data contained herein.

About the Watershed

- ✦ 210,000 acres of land
- ✦ 60 miles of creek
- ✦ Includes Honey Brook, Coatesville, Downingtown, West Chester, Chadds Ford, Wilmington
- ✦ Goes to Christina River, Delaware River, Delaware Bay, Atlantic Ocean
- ✦ Source of drinking water for many of us
- ✦ Red streams are impaired
- ✦ Blue streams are healthy
- ✦ A concern to us all



About the Author

Connie Nye (formerly Shapiro) lives in Downingtown, Pennsylvania, and has been working with children for thirty years in environmental, science, and outdoor education. She has developed numerous workshops and programs for elementary, middle, and high school students, including Indoor Out School, Brandywine FLOWS (the Future/the Legacy of Our WaterShed) and the Red Streams Blue School Program. As the mother of two daughters, an avid outdoor person, and a writer, Ms. Nye couldn't think of a better way to spend her days than exploring the Brandywine watershed. This is her first novel.

Purchasing the Novel

✿ Available through SWEET or
Connie Nye; discounts may apply

Paperback = \$20

Hardback = \$30

A portion of the purchases made from SWEET goes to 1) Chester County Fund for Women and Girls and 2) Cave Bird Coffee Cup of Life. These non-profits help to improve the lives of families in Chester County and in Uganda

✿ Also available through
www.authorhouse.com

✿ Also available through
www.amazon.com



SWEET

Sweet Water Education Events Training



For more programs related to Sweet Water Hunt,
visit www.sweetwatered.com