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LEARNING – AND LOVING IT!

How 4 schools are **inspiring** and **exciting** their students

INSIDE:

- A hop, skip and a jump into Grasshopper Grove
- Orange County libraries more vibrant than ever

Doreen Gleason's third-grade students at Cornwall Elementary School use Black Rock Forest as an outdoor classroom. [PHOTO COURTESY OF THE CORNWALL SCHOOL DISTRICT]





TAKE NOTE!

*How 4 Orange County
schools are inspiring
a love of learning*

BY KATHY SWANWICK

Public education, at its very best, aims to inspire and guide children toward promising and productive futures. A look at some of the most innovative programs at several Orange County schools shows that many of our best educators are living up to that.

Third-grade students at Cornwall Elementary School are learning about the natural world during their yearlong studies and overnight visits in nearby Black Rock Forest.

Minisink Valley Middle School eighth-graders are restoring a 1940s tractor in their technology class, picking up STEM (science, technology, engineering, math) lessons while they disassemble, take measurements, cut metal, sand, prime, paint and reassemble the tractor's parts.

Monroe-Woodbury High School students who think they might be interested in a teaching career get to experience the joys and challenges of the field, thanks to a new class taught by a 24-year veteran of the job.

A group of students in Sanfordville Elementary School, part of the Warwick Valley Central School District, recently approached their principal to ask if plastic straws could be recycled or removed from the cafeteria. The answer was yes, in keeping with the district's overall focus on sustainability. That commitment was recognized this spring, as Warwick Valley Middle School and Sanfordville Elementary School received the U.S. Department of Education 2019 Green Ribbon School award, the only schools in New York state to receive that prestigious designation.

"Our kids think green," said Johnna Maraia, Sanfordville's principal. "They think sustainability."



ABOVE: Addison Dwyer, Joseph Contreras and Quinn Johnson carry out the stream flow study by measuring the width of Black Rock Brook. [PHOTO COURTESY OF THE CORNWALL SCHOOL DISTRICT]

RIGHT: Teacher Doreen Gleason plays a fun prank on her students, gathering them together to surround trout fingerlings to get a good look at them. As they close in, the teacher yells, "SPLASH!" and the kids enjoy a fun time splashing about. Students pictured here include Addy Dwyer, Ava Heffner, Ryan LaPolla, Ella Cancel, Celeste Holman, Bella Orange, Teagan Rourke and Carter Hansen. [PHOTO COURTESY OF THE CORNWALL SCHOOL DISTRICT]





Doreen Gleason's students hike to do a microinvertebrate study to determine the health of the stream.



Chynna Saffer measures the width of Black Rock Brook to help determine the volume of water flowing to meet Canterbury Brook. [PHOTOS COURTESY OF THE CORNWALL SCHOOL DISTRICT]

Night hikes, campfires and class sleepovers in Black Rock Forest mark the culmination of a year of studying and learning about the natural world for third graders at Cornwall Elementary School.

"What I love about Black Rock Forest is that it's right in our backyard," said Doreen Gleason, a third-grade teacher and nature enthusiast. "And I tell my students it's the greatest classroom in all the land."

Born and raised in the area, Gleason was hiking in the forest long before she began teaching at Cornwall Central School District, which is part of the Black Rock Forest Consortium. About 20 years ago, she started working on a trout-release program with the forest's manager and began weaving the natural world into her classroom curriculum.

The students study the lifestyle of trout they raise in their classroom fish tanks.

"As these fish grow," said Gleason, "they monitor the tanks. They will measure the fish, take that information and graph it later on a growth graph. They will count the mortality. The eggs that die; why did they die? Why do fish lay so many eggs? Because of predators in the streams, things like that."

Ultimately, at the end of the school year, they release the fish into the stream behind their school.

"This becomes their legacy to the natural world," she said.

All of the district's schools are involved in

Cornwall Elementary School

the forest, "in some shape, manner or form," said Gleason.

And all of the third-grade classes do overnights in Black Rock Forest at the end of the year and each class does either a trout or an amphibian program during the year.

Gleason's class makes six or seven forays into the forest during the school year, working on math, science and even social studies while surrounded by water, trees, vegetation, fish and wildlife.

"I wanted to do more in the forest with the kids," she said. "You can sit in a spot and just write. We would go in and hike and find a quiet spot and we would write from the five senses – what we had seen there, smelled, touched and so on. It's about the plant life we see, the animal life."

And then the real work begins, said Gleason, with an emphasis on scientific methods.

"What does the water look like? What's the air temperature? The soil temperature? The pH? All sorts of data that we collect and we document it using tools like thermometers and pH kits."

They also bring cameras to record what they see, maybe a brilliantly hued autumn tree or a millipede.

The natural setting allows the children to play and get some exercise even while participating in schoolwork.

"The children who struggle to sit still and

pay attention in the classroom are involved out in the forest differently than in the classroom," she said. "They are allowed to climb. I don't mind if they run up ahead. I don't mind if they climb up on that log or rock. It's OK. What did you find up there? Did you take a picture of it? Did you write it down?"

The class makes Powerpoint slide presentations of the four seasons in the forest to show their parents at the end of the school year.

"We've learned about the water and how it flows and how it gets cleaned," said 8-year-old Karlee King, one of Gleason's students. "There's a reservoir in Black Rock and it changed temperatures and it was different every time. And the weather and the animal life. Sometimes we would see squirrels, sometimes we would see only birds and sometimes we would just see footprints of bears and stuff."

Having just completed her 30th year of teaching, Gleason says she has no plans to retire any time soon and still clearly loves working with the kids in the "outdoor classroom."

"I think I'm helping children find out that they're probably environmentalists at heart," she said. "It doesn't have to become your life's work, just an appreciation for the outdoors and an understanding that we all have to take care of it together because of the impact that people and communities have on our streams."