Black Rock Forest Consortium Hosts Day of Tiny House Tours

Tenth-grade students build livable, off-grid house for $15,000

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Contact: Emily Cunningham
Director of External Affairs
845-534-4517, ext. 26
ecunningham@blackrockforest.org

Working on the ninth floor of their Manhattan school building last spring, Integrated Science students from Avenues: The World School built a 100 square-foot tiny house, one four-by-eight foot section at a time. Then, in the second week of June, they packed the wooden frames into the elevator, got them out of the building, and loaded them into a U-Haul truck, joining their science teachers on a 90-minute trek to Cornwall, New York.

For months, students had studied energy transfer in physical and electrical systems, testing every aspect of their tiny house, from window breadth to floor thickness, for thermal efficiency. Each choice — from the recycled denim insulation to the roof slant — was critical to the off-grid design, given time and budgetary constraints. In one semester, the house had progressed from an idea to an approved project, now constructed and fully livable.

“At first, it was thrown out there as ‘would it even be possible?’” said Jason Hoeksema, an Integrated Science teacher at Avenues. But it would take more than school administrators to green-light the project. Few municipalities in New York allow tiny houses, so finding a legal location for the structure was a challenge — one that is also daunting for potential tiny house owners.

“All of our clients come to us confused about the regulations surrounding tiny home legality,” said Aaron Dykstra, a tiny house builder whose business, Living a Little Large, is located in Rockland County. “Very few towns allow tiny homes and must have minimum square footage requirements, in addition to other restrictions dealing with sewage and electricity.”

But the tiny house phenomenon is growing, due in part to popular television shows like Tiny House Nation. Capitalizing on their popularity, groups like the American Tiny House Association are working to change zoning laws. In the meantime, many advocates are secretive, and often don’t disclose the locations of their tiny homes.

The zoning issues didn’t phase Dr. William Schuster, a forest ecologist and the executive director of Black Rock Forest Consortium. Hoeksema and Steven Carpenter, another lead teacher on the Avenues project, had turned to Schuster for help with the project’s red tape. Schuster and his staff work with thousands of
students each year at the Cornwall-based Black Rock Forest, a 3,870-acre preserve. The Consortium’s
goals are to foster science education and teach environmental stewardship.

“The Avenues students wanted to learn how to have a light environmental footprint. Meanwhile, we can
always use more lodging and office space for scientists” Schuster said. “Our planning board saw this
project as educational, and they really didn’t have a problem with it.” With the permit waived by the
Town of Cornwall’s building inspector, the tiny house had found a home base.

The Avenues students will lead tours of their tiny house on Saturday, November 5th. Environmental
researchers who visit Black Rock Forest Consortium will have the chance to reserve lodging in the tiny
house, and the Consortium will offer occasional tiny house tours during public events.

Asked to reflect on the project after their return to school, some Avenues students were concerned
that the tiny house build might have left them less prepared than their peers for science subject tests.
Others, however, related to the project as an attempt to truly integrate science, not simply across
disciplines but with one’s approach to life.

“I feel like I learned more in this term than I did in the entire year combined,” said Truman Gaynes,
an Integrated Science student. That feeling, of a leap in learning, “was because of the building,”
Gaynes said, and “being involved in the actual details and the science of the tiny house.”

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Black Rock Forest Consortium advances scientific understanding of the natural world through research, education and
conservation. The Consortium maintains a 3,870-acre forest and scientific field station in the Hudson Highlands, 60
miles north of New York City. The Consortium collaborates with its members — universities, schools, scientific and
cultural institutions — to pursue and foster scientific inquiry and educational programs for K-16 students. For more
information on the Consortium, visit www.blackrockforest.org.