

The Virgin Islands Consortium

Woodson Students Build Prototype 'Green Homes' Representing Every Climatic Condition On The Planet

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ST. CROIX -- Detailed miniature, colorful houses, about 40 of them, designed to withstand the natural elements common to their geographical areas adorn a science classroom at the John H. Woodson Junior High School. Science Chairperson Anne Wilkins charged her 8th grade students with the classroom project of building prototype green homes in line with the U.S. Department of Energy's *Homes for Humanity* program. Wilkins said she got the idea while visiting a school system in Montgomery, Maryland where 8th graders were tasked by the U.S. Department of Energy to build homes that were considered to be eco-friendly.

“After returning home, I saw that my students were capable and that they had the ability to accomplish the same goal,” Wilkins said. “I decided to try it here at school and this is the second year that students in the H-team are participating in creating these green homes, and I have to say this year they did a phenomenal job,” the Woodson School Science teacher said. “I am extremely proud of my students. I couldn’t ask for better participation, better creativity, imagination – the homes are just wonderful.”

Students accepting the challenge spent countless hours each day, mostly at home, to build structures typical of the countries they had chosen. They randomly selected locations and researched the climate and architectural designs of the geographical areas. Moreover, Wilkins said the students followed the guidelines in building their structures to conserve energy, and to be affordable, comfortable and safe, using, for the most part, recycled and natural materials.

Before construction began, Wilkins pointed out the Science, Technology, Engineering and Mathematics (STEM) students went through “The Design Process” for their “green homes,” which translates into a 13-page design-folio they filled out and returned to her for a grade. According to the Science teacher, the students are benefitting academically because the project integrates technology, engineering and mathematics with science.

Through her research, Jahliyah Stevens explored the Death Valley area in Eastern California to build a prototype home for her project. She constructed her structure using small water bottle caps. With spaces throughout the structure, there was ample room for circulation of any breeze in this deserted area -- the lowest, driest and hottest area on the North American continent.

Other houses were built to mitigate damages from hurricane winds, flood waters, high temperatures and earthquakes. For example, Ayinde Martin used popsicle sticks to build a heavily insulated, compact house to keep its occupants warm in the cold climate of Moscow, Russia. (See video clip:*Ayinde Martin*).

Jahmoy Hardy did some research into the African Continent and came up with a suitable dwelling place for people of the Congo living in a tropical climate with a dense evergreen backdrop.

“This year I am hoping that my students will have the time and initiative to put together a short presentation and submit these homes to the U.S. Department of Energy and the Jimmy Carter Foundation,” Ms. Wilkins concluded.