

Urban Ecology

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What is urban ecology? How can humans create sustainable and efficient modern urban ecosystems? Students explored how humans interact with nature in urban ecosystems, applying concepts of sustainability and efficiency to design improved modern cities. They researched green building techniques, transportation options and alternative energies. In both their science and Humanities classes, they wrote articles and created original illustrations to explain their chosen topics. After a series of peer critiques, the articles were published in an Urban Ecology magazine that we sold at our school's annual Exhibition Night. We sold over 70 issues that evening, and orders are still coming in.

Teacher Reflections

What struck me from the outset was that the subject matter was very adult. Initially it was difficult to get 6th graders to care about "green" design. Once we got underway, the best part was seeing the students getting excited, creating their artwork and laboring to make their articles perfect for the magazine. Towards the end, our classroom literally turned into a magazine workroom. Bobby and I were editing, and the students were scurrying around scanning artwork, helping each other edit, working in Adobe Indesign, creating models of their topics and perfecting their layouts. It was an incredible vision of controlled chaos.

—Nicole Costa

I was amazed at how 6th graders grasped high-level concepts about ecologically sustainable building technologies. Not only did they become experts on their topics, but they convincingly debated the pros and cons with adult guests on Exhibition Night when we premiered the magazine. The repeated comment that I heard from adults was, "I can't believe this was created by kids!" I think the authentic, purposeful nature of the project helped students step up to the challenge of learning about advanced topics such as hydrogen fuel cells and solar thermal technology. My favorite part was teaching the students about page layout and design for the magazine, where I could bring my skills as a graphic designer into the classroom. We used real-world models (a collection of science magazines) to help our students generate expectations and high standards for their graphics, illustrations and writing. Multiple peer critiques helped us create a polished product and facilitated student-centered learning throughout the project.

—Bobby Shaddox

To learn more about this project and others visit the HTH Digital Commons and Bobby Shaddox's and Nicole Costa's digital portfolios at
<http://www.hightechhigh.org/dc/>
<http://staff.hightechhigh.org/~ncosta> and <http://staff.hightechhigh.org/~bshaddox>



Magic Mud

by Alexa Mier y Teran and Mark Juarez Jr.

As you walk in, you see incredible walls washed in a deep, intense red orange. It reminds you of a desert sunset. You go inside the walls; they are super smooth.

You can feel the nice breeze coming in from the windows. You walk outside, and the heat is excruciating! While you're out there, you can see the heat shimmering off the desert floor of New Mexico. You can see lizards climbing up the doors of your Toyota! You can see birds pecking at the cactus inside where the walls are cool. The chill from the night before stayed with the home. At the moment, all you want is an adobe home.

What Exactly is Adobe?

Adobe is a building material used to create homes. Adobe bricks are made of dirt, a small amount of water, and other fibers to make the bricks stronger. You can make adobe bricks look different by placing the mix in different molds. Adobe is a great alternative to wood because you don't have to cut down trees to make an adobe home. Adobe also has very good insulation. The heat or chill can stay in the walls to keep them at a certain temperature. That temperature slowly gets released. Another name for that is thermal mass.

Why is Adobe Green?

Adobe is both sustainable and eco-friendly because it's easy to get the materials to make it. Adobe is often used in making adobe homes. Adobe is often used in making adobe homes. Adobe is often used in making adobe homes.

A good thing about having adobe is that it's easy to get the materials to make it.

Evaluate Adobe

A good thing about having adobe is that it's easy to get the materials to make it.

Adobe is a good insulator. Adobe is also good for cutting down trees. These are some of the reasons why you should build with adobe. If you have...

Compost Toilet? No Joke

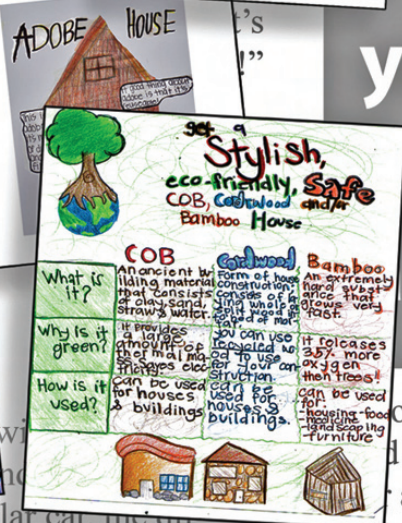
by Reilly Jensen & Kanny Anderson

You walk in a house to pee and you see a compost toilet. You think it's a joke. But it's not. It's a real thing. It's a compost toilet. It's a compost toilet. It's a compost toilet.

"Compost toilets replacing regular toilets in a household reduces water usage by 50%."

How They Work

A compost toilet is a toilet that uses a composting process to break down human waste. It's a composting process. It's a composting process. It's a composting process.



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