

Green by Design

This lesson was created as a supplement to the *Green by Design* program at the National Building Museum. It is designed to be used in your classroom independently, or as an activity before or after a school program at the Museum. For more information about and to register for the National Building Museum's school programs, visit <http://www.nbm.org/schools-educators/school-visit/>.

The *Green by Design* program helps fourth through ninth grade students understand the issues associated with making environmentally friendly living decisions and the effects of these decisions on their surroundings. It encourages young people to explore how design decisions are made and how they impact the natural and built environment.

National Building Museum

Created by an act of Congress in 1980, the National Building Museum explores, celebrates, and illuminates achievements in architecture, design, engineering, construction, and planning. Since opening its doors in 1985, the Museum has become a vital forum for exchanging ideas and information about such topical issues as managing suburban growth, designing and building sustainable communities, and revitalizing urban centers. A private, nonprofit institution, the Museum creates and presents engaging exhibitions and education programs, including innovative curricula for school children.

Over the past two decades, the Museum has created and refined an extensive array of youth programming. Each year, approximately 50,000 young people and their families participate in hands-on learning experiences at the Museum: 2-hour-long school programs for grades K–9; major daylong festivals; drop-in family workshops; programs helping Cub and Girl Scouts earn activity badges; and three innovative outreach programs, lasting between 30 and 60 hours, for secondary school students. The Museum's youth programming has won the Washington, D.C., Mayor's Arts Award for Outstanding Contributions to Arts Education and garnered recognition from the National Endowment for the Arts.



NATIONAL BUILDING MUSEUM
401 F Street, NW Washington, DC 20001
202.272.2448/www.NBM.org
Red Line Metro, Judiciary Square

Green By Design: Take a Closer Look

Treasuring Trees

Trees provide benefits that many communities value such as clean air, shade, and beauty. Walk around your community and conduct an inventory of the trees by recording the number and type of trees (use a botany/tree book from your local library). Based on the number of tree stumps you see, how many trees are missing? Contact your local government to find out where trees are needed in your community. Then ask a local nursery if it will donate trees to plant in the neighborhood, or do a fund-raiser in your school to collect money for them. As a class, plant them. Consider other places that need trees or plants. Start a garden at your school or bring plants into your home.

Resources: Casey Tree Endowment, www.casey-trees.org; Arbor Day Foundation, www.arborday.org; Edible School Yard, www.edibleschoolyard.org; neighborhood associations, and local departments of public works.

Locating Power, Water, and Waste

How is it possible that when we turn on the faucet, clean water comes out; that the lights turn on with a flip of a switch; and that streets are not full of trash? Local taxes help pay for a community's infrastructure—the services that help our cities work such as trash pick-up, power, recycling, and water. Try to imagine what happens beneath the streets to help your community operate. Walk around the block and locate manhole covers and meter boxes. How are they labeled? (i.e. water, sewer, telephone, other) Record how

many you find in a given block. What happens with poor sewage? Locate storm drains. Are any labeled? Participate in labeling storm drains with "Don't Dump" to encourage people to think about where the storm drains lead. Are paper, plastic, and glass recycled at your home? Where do these things go? Visit a recycling plant and/or landfill to better understand how trash is discarded and recycled material is reused. What choices can be made at a landfill?

Resources: Local departments of public works, Chesapeake Bay Foundation, www.cbf.org, DC Storm Drian Marker Program, www.dcschoolyard-greening.org/stormdrain—about.htm.

Rebuild or Preserve?

What should be done with an old house? This is an issue faced daily by city planners, developers, and architects, as well as people interested in preservation. Students can identify a deteriorated old building in their community and find out about the plans for its future. Ask your class about the advantages and disadvantages of tearing down the building and replacing the building versus renovating the existing building for another purpose. What factors will influence the decision such as budget, the citizen's voice, environmental impact, taxes, safety, etc.? Who should make the decision? What actions could the students take to influence the decision?

Resources: National Trust for Historic Preservation, www.nthp.org, and state and local preservation offices and organizations.