

Fuller's Fantastic Geodesic Dome

This lesson was created as a supplement to the *Fuller's Fantastic Geodesic Dome* 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 *Fuller's Fantastic Geodesic Dome* program teaches fifth through ninth grade students about principles of engineering and design. Through studying geodesic domes, students are exposed to an innovative solution to the ongoing challenge of creating structures—how to maximize space while creating a strong, cost-effective, people-friendly structure. By studying the geodesic dome and its construction, students learn about materials, structures, and forces present in all buildings.

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

Fun Field Trips: Exploring Your Community

Families:

In school and at the National Building Museum, your children are learning about the geodesic dome and its strength in building design. Encourage them to explore homes and buildings in their community and have them teach you about the basics of structures.

1 When you and your child walk or drive around your community, notice the buildings and homes that you pass. What roof structures do they have? Which designs work best with the weather patterns in your area? Which roof designs require the greatest structural support?

2 Take a close look at the local school playgrounds and parks for jungle gym structures. Ask your child why triangles are so strong.

3 Learn more about engineering at the National Building Museum's annual day-long family festivals, which allow young people to explore hands-on engineering and other building activities. Check the Museum's website or call for more information.

4 Take a tour of the U.S. Capitol, which includes an impressive dome.

5 Visit www.pbskids.org to learn how your family can use newspaper and masking tape to create a geodesic dome at home.



**Visit the National Building Museum,
where families can discover the world we build for ourselves!**

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Programs for Schools, Families, and Scouts, Outreach Programs, Discovery Carts, Exhibitions, Birthday Parties, Festivals, and Interactive Website