

## COLLEGE of EDUCATION

University of Massachusetts Amherst

# Pioneer Valley Science and Sustainability Expo

**UMassAmherst** 

Presented by Andrew Bowersox Greenfield High School Master Teaching Fellow—Supporting STEM Teaching and Learning through Communities

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#### **Organizer: Greening Greenfield**

www.greeninggreenfield.org

The KidWind Project

www.KidWind.org

**Energy Teachers** 

www.EnergyTeachers.org

**Massachusetts Association of Science Teachers** 

www.massscienceteach.org

Pioneer Valley STEM Network

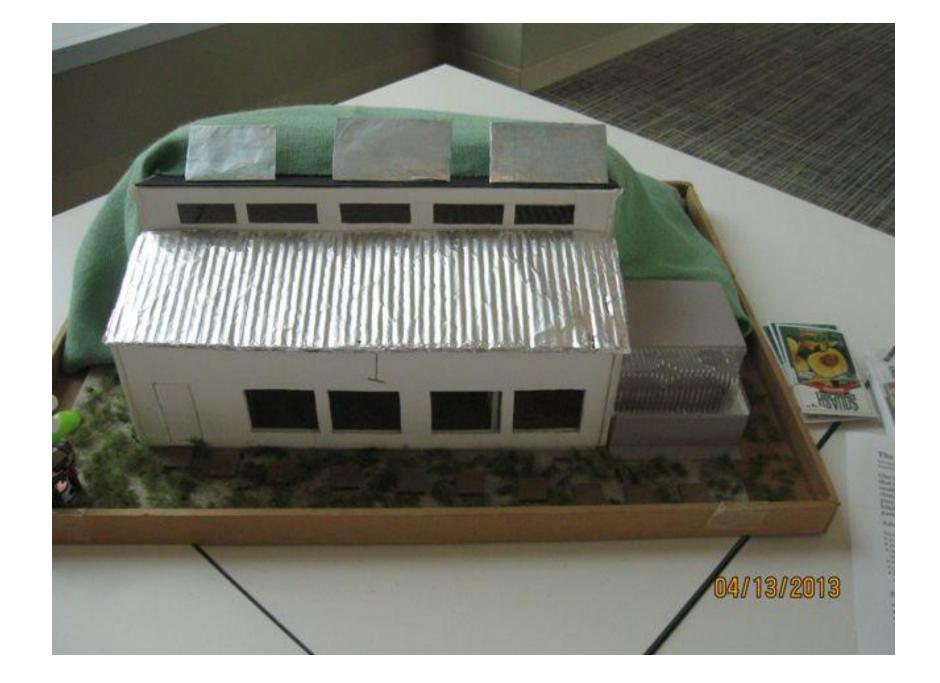
www.pvstem.net

**Greenfield Community College** 

www.gcc.mass.edu







#### Green Dollhouse Challenge

Students, families, and design/build professionals fabricate model play-houses to explore sustainability concepts and technologies related to energy use, materials, architecture, utility, aesthetics, nature, renewable resources, healthy living, clean air, and clean water.



# Kidwind Challenge

A wind turbine design contest for middle and high school. Students determine the size, shape, and number of blades to maximize the efficiency of their turbine. The turbines are tested in a wind tunnel and judged based on their performance, construction quality, material selection, and level of creativity and innovation. Students must also demonstrate knowledge of wind energy principles as part of the judging criteria.







### Sustainability Showcase

All ages (K-12), classroom projects, and adults gearing exhibits to this age group. The showcase brings the community together to share ideas and build a vision for sustainable development.



