



Button Up

Weatherization & Thermal Energy

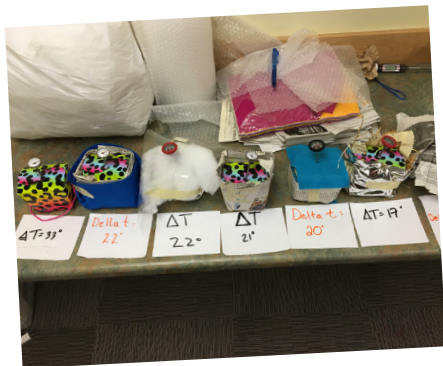


Guiding question, grades 6–8: How can we use less energy to heat our homes but still keep them warm (and toasty) in the winter?

Guiding question, grades 9–12: If you could make one improvement to slow thermal energy transfer outside of your first home/apartment, what would that be?



Students consider how they can use less energy to heat their home while still keeping it at a comfortable temperature. This workshop is designed to follow or complement a unit on heat transfer and the conservation of energy.



Button Up for middle school demonstrates the concepts of thermal energy transfer and familiarizes students with different insulation materials and their roles in heat transfer and slowing heat loss. After exploring data from four model houses with various levels of insulation and sealing, students test and investigate the thermal characteristics of insulating and air-sealing materials under different conditions. VEEP recommends that middle school teachers follow the Button Up in-class workshop with our new **Thermal Energy Extension: Weatherization Design Challenge**, an engineering extension that challenges students to construct the most energy efficient model houses they can. VEEP offers use of a curriculum support kit that includes materials to run the extension.

Button Up for high school also explores data from four model houses, but highlights a home heating challenge, where students play the role of new homeowners, researching and “purchasing” weatherization improvements for their new home.

Contact us at info@veep.org or 802-552-VNRG if you are interested in learning more or bringing this workshop into your class.