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Project SOS: The Science of Sustainability[1] CHRISTINE BERVEN, University of Idaho, Moscow, ID, KATHY DAWES, Palouse Discovery Science Center, Pullman WA, ANNE KERN, University of Idaho, Coeur d'Alene, ID, KATHLEEN RYAN, Washington State University, Pullman WA, PATRICIA MCNAMARA, Independent Evaluator, Chicago, IL — Project SOS: Making Connections Using The Science Of Sustainability is an Informal Science Education Pathways Project designed to teach the science of sustainability to middle-school aged youth in rural communities of northern ID and eastern WA. The educational focus is the physics of convection, conduction and radiation and how these exist in nature and specifically in the home of the youth. Our goal is to explore the implementation of a cooperative-learning model in which youth become experts in their area of heat transfer using portable exhibits, teach their fellow team-members about those mechanisms, and apply this knowledge as a team to improve the energy efficiency of a model house. We provide simple tools and instructions so that they may apply their new knowledge to their own homes. We analyze audio and video of the interactions of our facilitators with the youth and among the youth, and use pre- and post-surveys to document the increase in understanding of energy transfer mechanisms in their homes and the environment. The tools and techniques developed to accomplish our goals and our current findings regarding the effectiveness of this approach will be discussed.

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