



Greater Michigan Plumbing & Mechanical Contractors Sponsor Teacher Training Directed at Science Education Standards

Over thirty science teachers from throughout the Greater Michigan area participated in a two day workshop on internal and thermal energy, sponsored by the Greater Michigan Plumbing & Mechanical Contractors Association. The teachers observed and conducted dozens of demonstrations and student investigations they can use to enhance their instructional tool-box.

It also gave the industry the opportunity to showcase two amazing buildings, the United Association Great Lakes Training Center on the Campus of Washtenaw Community College and the Granger HVACR Building on the Campus of Ferris State University.

and seven student laboratory investigations were provided to teachers.

"Internal and thermal energy concepts are significant components of Michigan's science education standards," said Sandra Miller, President of the Greater Michigan Plumbing & Mechanical Contractors Association. "Our members welcome the opportunity to assist teachers with an area of science and technology that we are involved with on a daily basis."



Pictured – presentations at the UA Great Lakes Training Center

The first workshop was held for 22 teachers in the Washtenaw,

The most exciting demonstrations had teachers releasing the hidden heat found in all liquids, igniting cotton fibers with compressed air, and making a liquid rise from the heat of their hands. Written and video taped instructions for over 50 demonstrations

Livingston, Oakland county area, and conducted at the UA's Great Lakes Training Center, a state of the art training center that the teachers were extraordinarily impressed with. Workshops were conducted by the National Foundation for Energy Education (NFEE), a non-profit organization dedicated to encouraging energy related organizations' participation in the classroom.

"The members of the Greater Michigan PMCA are passionate about heating and cooling," said Jerry Katz, NFEF President and workshop leader. "Why not direct that passion to a targeted area of the curriculum."



These curriculum areas include concepts pertaining to the structure of matter, kinetic molecular theory, temperature, thermal expansion, heat transfer methods and phase changes.

State science standards also require students to plan and perform investigations while utilizing and strengthening their math skills. Teachers were provided with strategies for conducting these investigations.

The program is designed for both Middle School and High School Presentations. Teachers gave the program excellent grades, and made it a point to express their appreciation for the program and the sponsorship of the PMC. At both venues the teachers were given a tour of the new facilities and had the opportunity to discuss with PMC President Sandra Miller the many opportunities for careers and career advancement in the plumbing and HVACR industry.

Above – Standing – Jerry Katz during an experiment presentation

Below – Dan with the teachers as he prepares to give them a tour of the Great Lakes Facility



Pictured above, watching the video on the huge screen in the common center at the Granger – HVACR Building – Below – Teachers from the surrounding area at work



Michigan School Boards Presentation

During Dr. Katz visit, the PMC was also participating in the Michigan Association of School Boards Annual School Products and Services Show. At the booth area Dr. Katz showed the members from the various school boards a small example of the types of programs that are available for their school districts.

