

[Hands on learning at Marshfield's Governor Winslow School](#)

By Mary Jane Hanron, GateHouse News Service, Posted Dec 12, 2012 @ 08:12 AM

Miniature volcanoes, fossil displays and simulated oil spills are on the shelves, windowsills and counters of a classroom at the Governor Winslow School. Known as the STEM laboratory (Science, Technology, Engineering and Mathematics) it is the home of ideas, experiments, study and practice for fourth and fifth graders this year.

According to principal Karen Hubbard the lab has been an outstanding addition to the school community and a source of pride for students, staff and parents alike.

“The STEM lab is helping us to realize our goals here at Governor Winslow School,” she said. “It offers an opportunity for students to learn and practice 21st century skills needed for success and offers hands on, minds on learning for various types of learners.”

The laboratory was made possible by a grant from the Marshfield Education Foundation. Its existence and use in the curriculum helps students and teachers to consider the correlations across the four disciplines and how they connect academically and practically.

A large portion of the \$16,000 gift was used to furnish the room with proper laboratory desks, tables and stools, supplies of beakers and tubes for use in experimentation. Specific materials for lessons and demonstrations were also purchased and have been used by the teachers and student in experiments and projects ranging from environmental studies to engineering projects to mineral identification.

During a recent School Committee hosted by the Governor Winslow School, the STEM lab was the focal point of a spotlight on excellence. Fourth and fifth grade students, their teachers and parents welcomed the committee and the public to the laboratory and demonstrated some skills they had obtained in their studies.



Wicked Local staff photos by Chris Bernstein

Jenny Brown (L) and Katherine Cully (R) enjoy sharing a microscope as they study a human hair structure at 10x magnification.



Wicked Local staff photos by Chris Bernstein

5th grade teacher Mrs. Susan Joubert assists student Colby Marquis illustrate his observations from a microscope study.

Under the guidance of educators Karen Vaughn, Karen January and Susan Joubert students took turns demonstrating and presenting to the audience what they had been studying and reasons why the inquiry based and hands on methods were helpful and exciting.

Also assisting with the program is Marshfield resident, parent and Northeastern University engineering instructor Jennifer Love whom Hubbard met earlier in the year at an event at the community garden.

“I knew she would be a great fit for our program,” said Hubbard. “Her contributions and expertise have been very helpful.”

Love spoke about the importance of today’s student’s being trained for the 21st century workforce.

“If students obtain these skills they will not only be able to address the global needs of the future but they will be prepared to work in occupations that will survive and likely thrive despite uncertain economic situations,” Love said.

During the demonstration, one group demonstrated a working knowledge of mineral identification using packets of genuine materials to be studied and examined. In addition to measuring, weighing and visually reviewing the nuggets, students had practiced calculations, reasoning, deduction and practical applications for a scientific skill.

Taking turns describing their studies they stood around the laboratory tables with their notes and findings about the hematite, talc and calcite contained in the small bags they held.

Another group demonstrated knowledge of the scientific method and recreated an experiment they had practiced in class. Applying their newly acquired skills to the study of oil spills and possible solutions. They had recreated spills and ecosystems in plastic containers and subsequently attempted to develop ways to solve such problems.

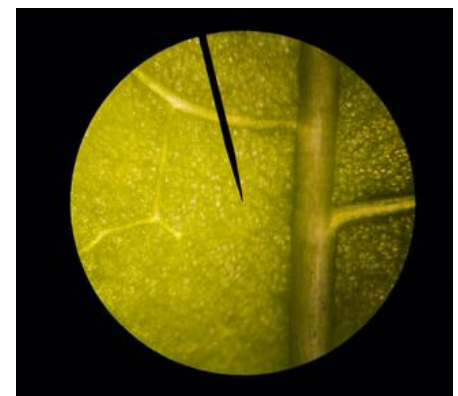
From journals in which their thoughts and findings were documented, several students read what they had learned and how they imagined their discoveries becoming future successful answers to some of the world’s dilemmas.



Wicked Local staff photos by Chris Bernstein
5th grader James Zawalick (R), sets the mirror on the microscope for light, as classmate Maddie Crowther studies a human hair at 10x magnification.



Wicked Local staff photos by Chris Bernstein
4th grader Emmalee Reed looks on as her teacher, Ms. Sara English, weighs chalk on a scale after it was submerged in a liquid.



Wicked Local staff photos by Chris Bernstein
A S.T.E.M. lab students microscopic view of a green leaf under the microscope at 10x magnification.

According to Hubbard, though only two grades are using the laboratory on a regular basis this year, students from other schools have visited and had an opportunity to become familiar with the learning potential offered by such an environment. As funds and opportunities become available, it is likely the program will expand.

“Mrs. Love has little children that will be coming along in the Marshfield schools,” Hubbard said. “Though they live in a different part of Marshfield, it is hard to imagine there will not be a lot of support for a STEM lab at Eames Way when they are old enough!”



Wicked Local staff photos by Chris Bernstein

Governor Winslow school 4th grader Kyle Farrell vigorously shakes up chalk in a bottle of liquid before measuring its rate of dissolving during S.T.E.M. science activities.



Wicked Local staff photos by Chris Bernstein

4th grader, Ashley Hale pours a measured amount of liquid into a bottle with chalk to measure how the chalk and water will react.



Wicked Local staff photos by Chris Bernstein

4th grader Emma Kenedy pours liquid into a graduated cylinder with chalk in it for measuring after chalk has been dissolved in it.



Wicked Local staff photos by Chris Bernstein

As instructed, 5th grader Sean McIntyre carries his microscope with great care.



Wicked Local staff photos by Chris Bernstein

5th grader Madeline Montgomery studies the various parts of the microscope.



Wicked Local staff photos by Chris Bernstein

5th grader Alison Casler ready to explore the microscopic world in the Governor Winslow School S.T.E.M. Lab.