Perry Middle School Science Olympiad - continued from page 12

practices a week. We worked with our mentor team Laingsburg after school, during a school day and on Saturdays to prepare. Once we had embarked on the season and energy sizzled among the team, we began field trips that really helped us see how established teams worked. We took a field trip to Grandville Middle School for a build day of airplanes. Perry and Laingsburg then attended the Fenner Nature Center in Lansing to gain new insight for the Ecology members and the Reptiles & Amphibian members. Great friendships were built and motivation was instilled in our team members. Lastly, Perry team went to the Flint Planetarium because they offered area teams training on the constellations. The Reach for the Stars event participants gained so much knowledge and had a wonderful experience. The hands-on experience was so informational and engaging to them. We ultimately had 5 team members this first season that attended two tournaments and finished eighth at our Mott Regionals.

We embarked on year two of Science Olympiad 2008-2009 with another grant. Our team had grown to 8 team members that were fortunate to attend field trips to both the Planetarium as well as the Children's Museum. We had two head coaches and all the science teachers were helping to run scheduled practices twice a week. Perry continued to work with the Laingsburg Middle School team because friendships had been formed and parents and coaches enjoyed the camaraderie the students from both schools had developed. We were competing in 13 of the 23 events offered and had taken on three build events – a plane, a bridge and a catapult. We competed in two tournaments and our Mott Regionals, finishing sixth overall.

2009-2010 approached and the Perry Middle School Science Olympiad team had grown to 13 members. In the fall, we were awarded the MSTA grant for $1,000. The grant allowed our team to purchase supplies for our students that are necessary to compete such as toolboxes, balsa wood, books and binders, craft supplies, office supplies and construction tools. Students worked together to build projects like a plane, a bridge and a catapult so that we were again able to compete in the very competitive build events. We began having a large parent support group that volunteered to coach many of the events and came regularly to all of our practices. The teacher, administration and parent support motivated the Perry team to success, which was evident by their enthusiasm for science. The MSTA grant also helped us to pay for two tournaments and attend our Regional Tournament at Mott Community College, competing in 19 of the 23 events with confidence. The MSTA grant money was very beneficial to our team when it came to the Science Olympiad season; it gave our students the opportunities that I had hoped for. We competed and gained experience, knowledge and excitement and brought home numerous medals to share with the Perry Middle School community. We had achieved many of our goals and the team was so disappointed to see our season come to a close. Science Olympiad has given experiences to Perry students that they will always remember, along with generating a genuine interest in science they can take with them.

At our end of the season team party, we asked students to put their team experience into words. They expressed how they loved building projects and the satisfaction they felt when competing and ultimately medaling with it. Other thoughts included the enjoyment in spending time with students at different grade levels. They appreciated the time with new friends they made, friends they felt they may never have met otherwise. The parents were so appreciative of the Science Olympiad coaches; their gratitude was so heartfelt.

Overall, I would strongly encourage any teacher to begin a Science Olympiad team. The coaches and parents have the opportunity to be part of a group that encourages students from all different backgrounds and levels to set goals and achieve success. It unites parents and teachers at the Middle School level, which can be a difficult transition for parents to feel needed. I have gained so much enjoyment, watching students find their niche in our school and strive to excel on our team. The MSTA grant allowed numerous students to do experiments, research, observe and build in Science Olympiad. Our goal is to encourage many future scientists, one Science Olympiad event at a time. Science Olympiad exemplifies why I entered this teaching profession-- a student who may struggle within the classroom can discover their own talents and abilities and realize they too can experience success!

Middle Level Curriculum Idea

MSTA Makes Astronomy Amazing

Brenda Lantinga, W.K. Kellogg Middle School, MSTA Mini-Grant 2009 Winner

The Hands on Science Initiative named student achievement as its number one priority, as well as giving our 6th and 7th grade students an opportunity to experience science like real scientists do.

This program provided students with real world experiences as young scientists through inquiry, experimentation, and personal experience that created enthusiasm and a desire to continue asking questions about the world they live in.

The Hands on Science Initiative was an intensive program giving 6th and 7th grade students exciting and

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MSTA Makes Astronomy Amazing - continued from page 14

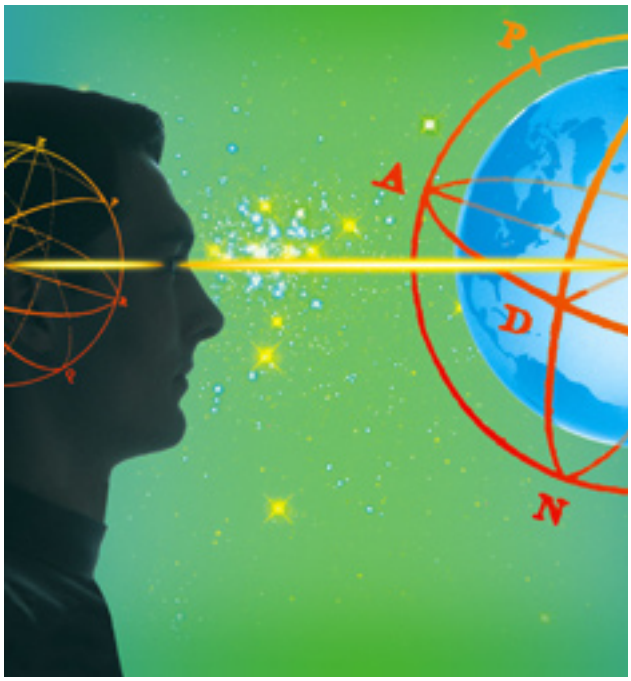
rewarding experiences that built their knowledge and connected their learning through inquiry based learning.

W.K. Kellogg students had performed very low in several areas of Earth science on the MEAP over the past several years. Our 2008 fall test scores averaged a passing rate of about 34% in the subject matter covering our universe.

The Hands on Science Initiative provided a Personal Planetarium, 3D Solar System Model, a Star Theater, an Expedition to Mars game, and a Solar Motion Lab activity. This equipment provided the much needed personal experiences that our urban students needed to internalize their learning in meaningful ways.

This collaboration is meant to result in higher MEAP science scores as well as other curricular areas requiring problem solving skills. The result of this experience intends to encourage students to continue pursuing these studies beyond the classroom!

After the initial equipment was purchased the program became self supporting for continuation from one school year to the next.



Secondary Level Curriculum Idea

Using Standards-Based Inquiry in High School Science Classes

By Mary C. Mobley, Grand Rapids Christian High School

As a teacher, I know that the state content standards are important. Somewhere, a group of expert teachers spent a lot of time and effort to identify and prioritize the most important science content for my high school students. I am happy to have this framework upon which I can develop my own classroom curriculum. The standards help me set goals and limits so that I will be able to cover the most important content in the school year. Otherwise, I would spend way too much time on the topics I like best (like genetics), and skim over the more dry and detailed ones (like photosynthesis). The state standards are an essential tool for me as a teacher.

As a scientist, I know that inquiry is an essential tool. Everything we know about science once started as a question, did it not? I want my students to think and act like scientists in my classroom, and that includes asking questions that lead to a process whereby knowledge and understanding are gained.

That said, in all honesty, I must admit that this has proven to be much more difficult than I imagined. There are limitations of time, space, resources, and energy that often deter me from incorporating inquiry in my daily instructional practices. I try to utilize some type of inquiry in every unit, but sometimes feel discouraged and ineffective.

In an effort to get some new ideas and replenish my motivation, I attended Heather Peterson's "Biology's Best! Labs, Activities and Lessons Using Inquiry AND Teaching the New State Standards" at the 2010 MSTA conference. What an excellent choice!

Heather, a biology teacher at Holt High School, was inspirational! Her session was PACKED with people sitting on the floor as well as lining the walls. I understand why. Heather not only was willing to share everything she uses in her classroom, she was enthusiastic and encouraging. The session was supplemented with a significant packet of information filled with ideas and plans for using inquiry in standards-based content. Heather helped me see that inquiry doesn't always have to be from "start to finish", but can be incorporated in smaller segments in nearly every lesson. She shared examples of how to infuse fun into the daily routine, with case studies, music, lab stations, humor, and intrigue. I left this session feeling encouraged that I **am** doing some things well and motivated to try out some new ideas that Heather so graciously shared.

Editor's Note: Heather was contacted and has graciously agreed to allow us to publish her email. Please contact her for materials and advice. Heather's email at Holt High School is; hpeterso@hpsk12.net