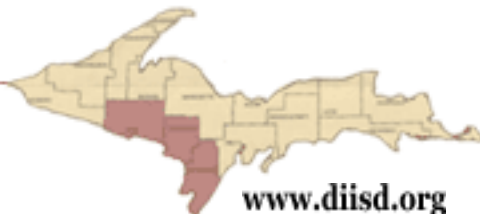


# DICKINSON IRON MENOMINEE



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## Educational News & Upcoming Events

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To prepare Michigan's students with the skills and knowledge needed for the jobs of the 21<sup>st</sup> Century global economy, the State of Michigan has enacted a rigorous new set of statewide graduation requirements that are among the best in the nation. These new graduation standards will be required starting with the Class of 2011, this year's eighth graders. The following is known as the Michigan Merit Curriculum.

| <u>Number of Credits</u> | <u>Curriculum Area</u>           | <u>Required Content</u>   |
|--------------------------|----------------------------------|---|
| 4 credits                | Mathematics                      | Algebra I; Geometry, Algebra II; including one credit in Senior Year                                |
| 4 credits                | English Language Arts            | Aligned with subject area content expectations developed by State Dept. of Education                |
| 3 credits                | Science                          | Biology, Physics or Chemistry, one additional Science credit  |
| 1 credit                 | Physical Education/Health        | Credit guidelines to be developed by the State Dept. of Education                                   |
| 3 credits                | Social Studies                   | .5 credit in Civics .5 credit in Economics; U.S. History and Geography; World History and Geography |
| 1 credit                 | Visual, Performing, Applied Arts | Credit guideline to be developed by the State Dept. of Education                                    |

Additional Requirements are:  
On-Line Learning Experience and World Languages

Content Expectations have been developed by the State Dept. of Education for Mathematics, English Language Arts and Science. Social Studies hopes to be approved in July 2007. The High School requirements build upon the K-8 Grade Level Content Expectations and will have a **major** impact on middle school curriculum as well as the changes in high school offerings.

I encourage all of you to check out the Michigan Department of Education web site weekly ([www.michigan.gov/mde](http://www.michigan.gov/mde)). The Math Science Center, DIISD, MCISD will be hosting workshops and informational meeting to address the new changes. Please join us for these sessions. Go to [www.dimmsat.org](http://www.dimmsat.org) to register and find links to DIISD & MCOISD.

**Dee Benjamin**

**The role of the teacher remains the highest calling of a free people. To the teacher, America entrusts her most precious resource, her children...**

*Shirley Hufstедler (1925 -)  
American attorney and former U.S.  
Secretary of Education*

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## ***Books on Girls being Bullied***

If you are aware of some problems within your districts, of girls being ostracized at school, please check out the following books that explains this phenomenon and offers suggestions on ways to address it. Odd Girl Out: The Hidden Culture of Aggression in Girls, by Rachel Simons. Also other recommendations would be checking our local libraries for Reviving Ophelia; Saving the Selves of Adolescent Girls, by Mary Pipher, PH.D.

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## **Building a Presence for Science**

Building a Presence for Science, a program of NSTA, is establishing a state network to provide science teachers with professional development, the ability to network with other science teachers, and to promote inquiry-based science teaching and learning. The mission is to end the isolation of classroom science teachers and to provide science teaching resources.

Building a Presence for Science establishes state networks of science teachers by identifying leaders and equipping them with science education materials and resources. These leaders, in turn, communicate with teachers in schools throughout the state. The program provides professional development based on both the National Science Education Standards and on Michigan standards.

The Dickinson-Iron-Menominee Math Science Center is trying to establish one key teacher at every school building at the elementary, middle school and high school level. The key leader would be responsible for forwarding the information he/she received by e-mail out to all other appropriate teachers in their building. It does not commit the teacher to any additional meetings or trainings.

You can check out the web site at <http://science.nsta.org/bap>. If you are interested in becoming part of the Building a Presence in Science team, please e-mail Dee Benjamin at [dbenjamin@diisd.org](mailto:dbenjamin@diisd.org). Membership in the MSTA will be paid for by the Center for all key leaders.

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## ***Risk on the Internet***

In an article from Annie's Mailbox, a reader had commented about how concerned parents were on the risk of children on the Internet. It was noted as more and more children go online, so do child predators. Families should know that children too often make themselves vulnerable targets.



Last fall a national survey of children ages 8-18 found that half of teenagers post personal information about themselves online, one-third talked about meeting someone they knew only online, and one in eight discovered an adult posing as much younger.

It was recommended that teachers and parents use positive communication with our children. Students ages 8-12, take fewer risks and they should be praised for caution. Teens, 13 - 18, must be convinced of risks and may need to hear stories of kids manipulated because of their Internet behavior.

Know what your kids do online. Ask them to show you their profiles and what activities are popular on the Web.

For more guidance, and to order a free Internet Safety Kit, visit the website [www.pollyklaas.org](http://www.pollyklaas.org)



The Dickinson/Iron Math-Science Center hosted a week long introductory and advanced training for teachers using digital maps to teach their curriculum. The institute focused on how to use computerized maps to teach concepts in Geography and Earth Science Classes using the curriculum of Mapping Our World Geographic Lessons for Educators. This is a nicely contained set of lessons that gets students thinking of different ways to look at statistics important to both science and geography while supporting math skills such as graphing, ordering, and manipulating data.

There is a whole world of data that can support other pieces of your curriculum. Geographic Information Systems (GIS) has the ability to use real life data to support topics from physical education classes in mapping out a running course for cross country to biology by mapping out animal ranges such as certain bat species to business clubs in school to find the best site location for a business according to census data. We will be highlighting selected sites throughout this year that can be helpful to teach concepts in your classes throughout this year. These internet sites can represent data on maps even if you don't have any visualization software in place at your school.

[www.nationalatlas.gov](http://www.nationalatlas.gov) - If there were only one site that we could encourage you to look at to get a feeling for how to use map based data in your classroom that hits a broad selection of school topics this would be the site to explore. This site contains general US data from biological, geological, government, civil services to population and economic information about the US. It contains a map making interface that allows you to explore data about the US by following the bright yellow square in the upper left corner of the homepage. A set of expandable menus drop down on the left of the map maker page that allows you to explore crop output, crime details, West Nile virus cases, to issues of invasive species of particular concern to us here in Michigan, i.e. Zebra Mussels or Eurasian Millfoil. Give the page a try sometime, the automatic mapping function is the start of finding data about the US. You can also follow the links for any of its specialty topics by clicking on the links in the border at the top of the home page. This data is the digital version of the coffee table atlas the US government had been publishing through the 70's.

[www.statemaster.com](http://www.statemaster.com) and [www.nationmaster.com](http://www.nationmaster.com) - No matter what you teach these two sites are brilliantly put together to make statistics about the US states or countries around the world come alive. The data sets in these two stats websites are both intriguing and personally relevant. If students want to find stats about who has the biggest problem with smoking to who spends the most time on computer, these sites have well over a thousand stats about each state.

# Science



## Rockets For Schools Celebrate their 12th Year!

Recently a new Tripoli high-power model rocketry prefecture was formed at the Dickinson-Iron-Menominee Math-Science Center area. This new organization will enable the launching of all kinds of rockets, from the small “Estes” type to the large 7 foot and larger high power models. Advantages gained through this new prefecture include reducing travel time to a high-power launch area from five or more hours to only one or two, knowledgeable and qualified launch instructors, the opportunity to start a Rockets For Schools program in local schools, and liability protection through a million dollar coverage from the Tripoli organization. Both Iron Mountain Central Middle School and Kingsford High School team are a part of the Tripoli prefecture. The rockets program was started at the DIISD in 1994. Anyone interested in starting either a High School or Middle School program should contact Dee Benjamin, Milt Wirth or Bill Bertoldi.



### Iron Mountain Central Middle School Rocketry Team

Front row-l to r: Ashely VanDenHeuvel, Luke Anderson, Joe Christiansen, Kory Krasowski, TJ Haferkorn - back row-l to r: Program Director Milt Wirth, Roberta Adams, Kristen D'Agostino, Casey Ebertsch, Caitlyn Hautamaki, Cole Cavalieri. The competition took place May 12 and 13, 2006 in Sheboygan, Wisconsin. The team took first place in competing with 30 high school and 9 middle school teams.



### Kingsford's High Power Rocketry Club

Kingsford High School High Power Rocketry Club was awarded the 2006 Excellence in Education Award from the Michigan Association of School Boards and SET/SEG. Students in Kingsford's High Power Rocketry Program will now be able to fly their rockets in the local area. This will allow people in the community to see the projects they build each year and see them fly. Bill Bertoldi is the Program Director and they have their own website at [www.kingsford.org/khsweb/rfslink](http://www.kingsford.org/khsweb/rfslink).



## EARTH SCIENCE WEEK 2006: "BE A CITIZEN SCIENTIST!" OCT. 8-14, 2006

Since October 1998, the American Geological Institute (AGI) has organized Earth Science Week, a national and international event to help the public gain a better understanding and appreciation for the Earth Sciences and to encourage stewardship of the earth. AGI has announced "Be A Citizen Scientist!" as the theme for this year's Earth Science Week. What does it mean to be a Citizen Scientist? It means getting involved, with real people collecting data, observing, and testing. Neither a Ph.D nor even formal education in Earth Science is necessary to be a Citizen Scientist, only an interest and desire to learn. To get involved in ESW 2006 visit <http://www.earthsciweek.org>.

## NASA PORTAL FEATURE: OCEANWORLD

What happens in the ocean, does not always stay in the ocean. OceanWorld, a Web site developed at Texas A&M University, explores connections among the ocean, atmosphere, economy and other aspects of everyday life. Read more about this online resource for students in middle school through college in a story recently featured on the NASA portal:



[http://www.nasa.gov/audience/foreducators/5-8/features/F\\_Ocean\\_World.html](http://www.nasa.gov/audience/foreducators/5-8/features/F_Ocean_World.html)

## FREE Resources

Survey showing science teachers at conferences, and in focus groups show they need resources. **FREE** resources. For the last four years, the editors of *Science Class* have produced the *Free for All* issue to share with their readers the amazing array of FREE materials and resources available to them.

Here's a few....

### **Free for All From NSTA**

NSTA offers many resources and services at no charge; some are available only to NSTA members, but many are available to all. To read about what NSTA has to offer, visit [http://science.nsta.org/enewsletter/2006-06/high\\_school.htm](http://science.nsta.org/enewsletter/2006-06/high_school.htm).

### **Free for All from the U.S. Government**

Various government agencies offer free programs, resources, lesson plans, and more. To find out what's new from the U.S. government, visit [http://science.nsta.org/enewsletter/2006-06/books\\_high.htm](http://science.nsta.org/enewsletter/2006-06/books_high.htm).

### **Free for All for Teachers of Science**

Visit [http://science.nsta.org/enewsletter/2006-06/news\\_stories\\_high.htm](http://science.nsta.org/enewsletter/2006-06/news_stories_high.htm)

## **Michigan Merit Curriculum - Science**

Course Content Expectations have been developed for High School Biology, Chemistry, Earth Science and Physics (**DRAFT**). These are to provide a common understanding of what all high school students should know and be able to do at the completion of each credit/course.

Course/Credit Requirements are also listed on the MDE site for Biology, Chemistry, Earth Science and Physics in **draft form**.

# Professional Development Mathematics

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## Upper Peninsula “Building Bridges” Math Science Partnership Wraps Up First Year’s Activities

The five Math Science Centers and the three State four year universities in the Upper Peninsula of Michigan have partnered to improve mathematics content knowledge and instructional practices of teachers and, by extension, the achievement of students in mathematics across the UP.

There are over 100 middle and/or high school teachers identified as treatment teachers across the UP and over 80 control teachers around the UP and northern Michigan. The treatment teachers have participated in lesson study trainings and have worked through the lesson study process in small work groups. The teachers have also conducted the survey of enacted curriculum and a content knowledge test that are acting as pretests. In addition, students of treatment teachers and some control teachers have also participated in pre and post testing as part of the research model.

There are factors associated with programming in mathematics that are unique to the Upper Peninsula. One factor is the geography; we are covering over 10,000 square miles with this project. Many of the mathematics teachers in the UP are the “only” math teacher in their high or middle school and do not have departments to work.

They are completely responsible for the delivery of mathematics education at the middle and/or high school level. In our very small districts, one teacher may be responsible for mathematics education for all students from grades 7 through 12. The lesson study process has allowed the teachers to carefully examine individual lessons and, as importantly, watch fellow teachers “in action” around a particular math topic. The creation of these regional learning communities, one per Math Science Center, has been exciting.

Another factor that has proven to be a factor is the access to continuing mathematics education for teachers in the UP. The university partners; Michigan Tech, Northern Michigan University and Lake Superior State University, are providing very specific math programming through course offerings designed to meet the needs of our UP

math teachers. Course needs were identified as those required to become highly qualified and/or courses that may be advantageous as identified by weaknesses in student achievement data. All three universities developed courses, in cooperation with their regional math science center staff, that were delivered during the academic year on nights or weekends and summer institutes offered in 2006. Treatment teachers are allowed to take courses through any of the UP universities and there has been a good mix of regions, further extending the learning community.

**First workshop for math partnership is September 27 at the DIISD at 8:30 a.m.**

### Michigan Merit Curriculum - Mathematics

Course Content Expectations have been developed for High School Algebra I, Algebra II, Geometry, Precalculus, and Statistics & Probability. These are to provide a common understanding of what all high school students should now and be able to do at the completion of each credit/course. Course/Credit Requirements for these have also been developed and are listed on the MDE site along with a power point presentation on HSCE for Mathematics. These build on the GLCE K-8 in Mathematics.

## Algebra Workshop

Algebra Workshop is scheduled for October 9th at 8:30 a.m. for Middle School and High School teachers teaching Algebra. Available from NMU for .5 credit (989).

## AIMS WORKSHOPS

AIMS workshops are scheduled for November 8th for 5th and 6th grade and November 9th for 7th and 8th grade. Both workshops start at 8:30 a.m. at the DIISD and will cover GLCE for Math.

## **Michigan Merit Curriculum – English Language Arts**

Course Content Expectations have been developed for High School Grades 9 and 10. These are to provide a common understanding of what all high school students should now be able to do at the completion of each credit/course. Course/Credit Requirements for these have also been developed and are listed on the MDE site along with a power point presentation on HSCE for English Language Arts. These build on the GLEC in K-8 in English Language Arts.

The Office of School Improvement in collaboration with educators from the field has developed a new companion document to assist with the Grade Level Content Expectations for English Language Arts (GLCE). The Across the Grades K-8 document provides a look at each GLCE in a matrix format across the grades. This “cross-grade” format allows grade levels to be easily compared with each other.

You will find three separate matrices; Reading; Writing; and Speaking, Listening, and Viewing. Within each grade band, the expectations have been aligned to show progression of a concept from one grade to the next.

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## **Content Expectation for Social Studies**

Work is still being done on the Content Expectations for Social Studies. The work has been divided into two separate projects K-8 GLCE and High School Content Expectations. Work done on both revises previous iterations of the K-12 Content Expectations for Social Studies and will develop new content expectations to meet the Michigan Merit Curriculum (World History and Geography). Previous draft expectations that have been developed will be used as a resource. The final K-8 Grade Level Content Expectations for the Social Studies and the High School Content Expectations for U.S. History & Geography, World History & Geography, Civics, and Economics is expected to be completed and approved by the State Board of Education in July 2007.

**All area Foreign Language teachers are invited to attend the “F.L.T. Learning Community” October 13 at 8:30 a.m. at the DIISD.**

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## Dates to Remember

|  |                              |
|--|------------------------------|
| Math Partnership Workshop.....           | September 27                 |
| Algebra Workshop.....                    | October 9                    |
| Foregin Language Workshop.....           | October 13                   |
| Teaching American History Workshop ..... | October 27                   |
| MMLA Workshop.....                       | November 7                   |
| AIMS Workshop.....                       | November 8 (5th & 6th Grade) |
| AIMS Workshop.....                       | November 9 (7th & 8th Grade) |

To register go to the website [www.diisd.org](http://www.diisd.org) and click on workshops.

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