

INTERCHANGE

September 2003

Volume 10, Number 6

From the Regional Math & Science
Center at Grand Valley State University

*Our Vision: Math and Science: Excitement in
Learning for Success in Living*

*Our Mission: Provide and coordinate
leadership, programs and services to achieve
excellence for all in the teaching, learning and
application of mathematics and science.*

In this Issue...

Read about the success of the **Building Science Leader Program** at a Muskegon school and check out an **environmental education and GLOBE training** workshop, *page 2*

An **invasive species workshop** is offered at the Lake Michigan Center and readers are notified of a **change in Interchange** issues. *page 3*

Our **Science and Math Update** has fascinating articles about Fibonacci numbers, bitter tastes, and solar radiation and lakes. *pages 4-5*

Interested in workshops exploring **biotechnology** or **Newton's Laws of Motion**? Have a favorite teacher to nominate for **Excellence in Inquiry-based Science**? If the answer(s) is yes, turn to *page 6!*

Get a jump on the school year by signing up for activities listed in the **Calendar of Events**. *pages 7 and 8*

Finally, where's the **Regional Math and Science Center**? *page 8*

GVSU Hosts STEPS Engineering Experiences for Girls

For the second consecutive summer, the Padnos School of Engineering and the Regional Math and Science Center at Grand Valley State University held two sessions of STEPS residential summer camps for 79 seventh grade girls on the Allendale and Pew Campuses. STEPS stands for Science Technology and Engineering Preview Summer. This camp is a one-week applied science camp experience for girls entering 7th grade. Girls are introduced to the world of technology, science, and engineering by learning more about what engineers do. The camp's purposes are two-fold. One is to expose young women to many engineering opportunities while building an individual project, a large model glider airplane. The other purpose is to build self-confidence and self-esteem while working as a unified team. The girls learned about many technical careers early enough to influence their choices of math, science, and technical courses in middle school and high school.

Program activities included designing, manufacturing, and flying a radio-controlled airplane with each girl making their own airplane glider to take home. The girls crafted their foam airplanes using power tools, jigs, and fixtures with the help of engineering professors, radio-control volunteers, and other college student volunteers. Camp activities and events were planned to make this adventure a truly memorable camping experience.

See "STEPS" on page 3



Young engineers perfect their wings as part of the STEPS camp

Paula Melin-VanOeveren: A Building Science Leader Success Story

Three years ago, with funding through an Eisenhower Higher Education Grant, the Regional Math and Science Center at Grand Valley State University initiated the Building Science Leader Program for elementary teachers. Our objective for this program was to improve the quantity and quality of science teaching in elementary schools through the development of building-level teacher leaders. In our first teacher leader cadre of this two-year program that began in Fall 2000, we had 23 teachers from a variety of districts in our region.

One of those teachers was Paula Melin-VanOeveren, a second grade teacher at Martin Luther King Jr. Elementary School in Muskegon Heights. Recommended for the program by her principal, Mr. Marvin Nash, Paula has a love for children and a natural enthusiasm for science. She realized the necessity of improving science education for all the students at the school, but was overwhelmed by the idea of trying to start a successful science program in a building where science was not in the school improvement plan at the time.

Over the two years of the program, Paula, in collaboration with the teachers in her building, has taken significant steps in improving science education for their students. One of the first steps taken was to hold family "Science Nights" where parents and students spent an evening doing hands-on science together and receiving free books on science topics. Next was the adoption of a science curriculum aligned with the Michigan Curriculum Framework. Teacher awareness of science benchmarks and interest in doing more science in the classroom was raised through information that Paula shared with the staff and her offers of personal assistance. She was instrumental in bringing professional development into her building for the teachers and staff. As she learned more about being a science leader, Paula became a member of the district science committee.

Recognizing her efforts the district, under the leadership of LaDon Gustafson, Assistant Superintendent for Instruction, wrote and received a Title II Grant for Paula to be the Science Coordinator for her building. Last spring, this grant enabled Paula to organize and equip a designated room for science where she taught science, in an inquiry-based format, to all the students in her building. This fall, her role will change as she begins team teaching science with the classroom teachers when their students come to the science room. Winter semester, the teachers will teach their own science lessons with Paula acting as a peer coach.

Over the three years that Paula has been a science leader in her building, interest in science on the part of students has grown tremendously. Students will try to come to the science room, instead of going out to recess, just to see what is happening. Science is now an integral part of the school culture. While involved in an investigation, Paula overheard one student tell another, "Mrs. VanOeveren used to be a teacher – now she's a scientist!"

INTERCHANGE

Where information is given and received for the purpose of advancing excellence in mathematics and science education. Published Monthly. Deadline for copy for the October issue of *Interchange* is September 24, 2003.

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Paula Melin-VanOeveren's students explore science.

Popular Workshop Offered in October

The Michigan Environmental Council, Grand Valley State University / Annis Water Resources Institute and Regional Math and Science Center, and the West Michigan Environmental Council are pleased to be able to again offer this popular workshop in "Environmental Education and GLOBE Training" to teachers in our region. The workshop is comprised of training in the Murphy Model for Environmental Education (M²E²) and the GLOBE Program. Through the combination of these two components, participants will learn how to integrate a hands-on environmental science program into their existing curricula.

These materials were developed under a grant awarded by the Michigan State Board of Education.

The GLOBE component this year will train teachers in the two most used protocols, atmosphere and hydrology. The atmosphere protocols include weather-related measurements including temperature, clouds, and precipitation. The hydrology protocols focus on water quality measurements. Teachers are expected to develop and implement a unit in their classrooms based upon workshop materials.

This two day-workshop for upper elementary and middle school teachers will be held at the Lake Michigan Center of GVSU in Muskegon, MI. Participants must attend the workshop on both Friday and Saturday, October 3 & 4, 2003 from 8:30 a.m.–4:30 p.m. to receive:

- GLOBE Program Manual
- \$75 stipend for each participant. The stipend will be payable upon successful classroom implementation of the training. In past years, the payments have usually been made four to five months following the training because it has taken teachers this long to implement the training.
- GLOBE equipment for collecting either atmosphere or hydrology data to support the classroom unit developed as a result of the workshop
- Substitute reimbursement for the Friday workshop session (payable to the school – maximum \$90).
- Limited reimbursement for mileage.

More information about this workshop and registration and application forms are available on the Regional Math & Science Center website at www.gvsu.edu/rmsc under "Teachers & Administrators, Professional Development Opportunities and Workshops". While there is no registration fee for this workshop, registration is limited. Participants must meet the criterion for selection and submit an application form. Individual

teachers may apply for this workshop; however, preference will be given to teams of two or more teachers from a school. Deadline for Application is September 17, 2003.

NOTE: The RMSC will not be mailing brochures for this workshop in an effort to cut costs. The brochure will only be available for download on-line at www.gvsu.edu/rmsc. Questions regarding this workshop may be directed to Karen Meyers, Assistant Director, RMSC, at (616) 331-2515 or meyersk@gvsu.edu.

STEPS

continued from page 1

GVSU engineering faculty and students, instructional technology staff, physics faculty, and movement science faculty taught this year's activities and classes on both the Pew and Allendale campuses. Volunteers who are local members of radio-controlled groups, Grand Valley Radio-Control Club, and the Warped Wings Flying Club provided the technical flying and model airplane jig-making expertise.

Living together with roommates in campus dormitories while attending scheduled sessions and science classes provided many of the girls with their first experience of college life. During camp, they made new friends from all over Michigan. By the end of the week, campers left with a new glider airplane and an expanded perspective of themselves, college life, and others.

This program was supported by the Society of Manufacturing Engineers (SME) Educational Foundation, and partially funded by the Nokomis Foundation, Michigan Space Grant Consortium, and Grand Valley State University as well as many other supporters from local industries.

Learn about Invasive Species at Workshop

Come and learn about the animals and plants that are invading the Great Lakes. Along with information about individual species from Chuck Pistis of Michigan Sea Grant, lesson plans and links to state standards will be presented. Educators attending the workshop will receive a special edition of "The Great Lakes Invasion" published by the Muskegon Chronicle for their students. The Chronicle is sponsoring essay and poster contests on invasive species.

The workshop will be from 4:00 – 7:00 p.m. on October 7, 2003 at the GVSU-AWRI Lake Michigan Center at 740 W. Shoreline Drive in Muskegon. A light supper will be served. There is a \$20 fee for the workshop, and pre-registration is needed. To register, contact Janet Vail at 728-3601 or vailj@gvsu.edu.



Interchange Issues Scaled Back

Due to funding constrictions the GVSU Regional Math and Science Center will need to scale back the number of *Interchange* issues from nine to only six per year. Issues and their copy deadlines are as follows: September (August 18), October (September 24), December/January (November 24), February (January 27), April (March 17), and May (April 21). Questions or articles can be sent to Steve Mattox at mattoxs@gvsu.edu.

Fibonacci Numbers

By Matt Boelkins, Department of Mathematics

In the early 1200s AD, Leonardo of Pisa (later to become known as Fibonacci) introduced a fascinating sequence of numbers. In studying the ideal population growth of rabbits, Fibonacci proposed that if one started with one pair of rabbits and the female gave birth to one male/female pair each month, and all subsequent pairs of rabbits produced offspring in the same way, then the number of adult pairs one would have after successive time intervals would be 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, ...

The amazing thing is that while Fibonacci's work does little to model the genuine population behavior of rabbits, this famous sequence is commonly found in nature.

One beautiful example involves the number of petals on a flower, often a Fibonacci number. While 1 and 2 petal flowers are not common, flowers with 3, 5, 8, and 13 are. The black-eyed Susan is an example of a flower with 13 petals; daisies often have the next Fibonacci numbers with 13, 21, 34, 55, and even 89 petals!

The number of spirals in a pinecone is typically 8 or 13. In a pineapple, one can count 5, 8, or 13 spirals. In more complicated seed arrangements like in a sunflower, the number of spirals is a Fibonacci number. If you find 34 spirals in one direction, then you will find either 21 or 55 in the other! Why does this happen?

Mathematician Michael Naylor of Western Washington University has recently proposed a mathematical model for explaining how Fibonacci numbers arise in seed

spirals. New seeds are always "born" in the center of the flower, and thus they "push" the other seeds out of the way. Each seed that gets pushed settles into a new position at a constant angle of rotation when compared to the incoming seed. Naylor explored different angles of rotation and the impact on the distribution of seeds. He discovered that having the angle of rotation related to the Golden Ratio ($\frac{1+\sqrt{5}}{2} \approx 1.618$) results in a very even distribution



In more complicated seed arrangements like in a sunflower, the number of spirals is a Fibonacci number.



of seeds, much like what one sees in sunflowers. Is Naylor's observation about the Golden Ratio surprising? Perhaps not. If one looks more formally at the Fibonacci sequence by calling the n th number f_n , then one can define these numbers by the recursive formula:

$$f_n = f_{n-1} + f_{n-2}$$

for all n larger than 2 by starting with $f_1 = 1$ and $f_2 = 1$. Using calculus techniques, it is possible to prove that the successive ratios of Fibonacci numbers, f_{n+1}/f_n , approach the Golden Ratio as n gets large. To see some numerical evidence of this, observe that:

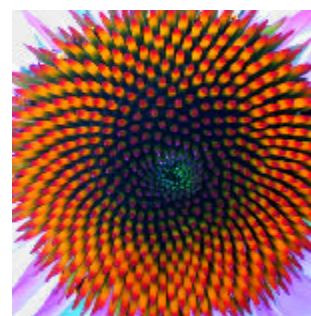
$$\frac{f_{n+1}}{f_n} = \frac{f_n + f_{n-1}}{f_n} = 1 + \frac{f_{n-1}}{f_n}$$

Naylor observed other important

interactions between the Fibonacci numbers and the Golden Ratio simply by counting the number of seeds consecutively from the center. In this case, the Fibonacci-numbered seeds appear magically along the "zero line", basically the positive x -axis emanating from the center of the flower.

To understand why the Golden Ratio so naturally appears in spirals, well ... perhaps that's a story for another day (or at least another Math Science Update). But both this famous sequence and famous golden number are marvelous examples of mathematics in nature.

To learn more about Fibonacci numbers, spirals, and the Golden Ratio see www.mcs.surrey.ac.uk/Personal/R.Knott/Fibonacci/fibnat.html. You can also go to Mike Naylor's web page itself (www.ac.wvu.edu/~mnaylor/seeds.html).



Are You A "Bitter-Taster"?

By Linda Goossen, School of Health Sciences

Did you know that not all people can taste bitter? The ability to taste bitter has been studied for over 70 years. Scientists test this ability by using phenylthiocarbamide (PTC),

a prototype of a class of bitter substances. Studies have provided evidence that about 30% of the U.S. population are PTC non-tasters while 70% experience PTC as intensely bitter. The ability to taste PTC is dominantly inherited.

Why is this important? The ability to distinguish bitter tastes has been shown to affect dietary choices. Investigations also indicate that non-tasters may not experience the bitter taste of nicotine, and thus may be at greater risk for smoking.

Scientists, from the National Institutes of Health, the University of Utah, and Stanford University, recently identified the gene that determines the ability to distinguish a wide variety of bitter tastes (*Science*, 2/21/03). Dennis Drayna, Ph.D., project leader of the collaboration explains the findings: "We have identified a gene on chromosome 7 that exists in five different forms throughout the world. One of these forms confers a severe deficit in taste ability, while the other forms produce intermediate to fully sensitive taste abilities. This gene codes for part of the bitter taste receptor complex which exists in cells on the tongue."

The investigators have identified a small region on chromosome 7q that shows strong linkage disequilibrium between SNP markers (single nucleotide polymorphisms) and PTC sensitivity in unrelated subjects. SNPs are the DNA sequence variations that occur when a single nucleotide in the genome sequence is altered. The region of 7q contains a single gene the investigators are calling "PTC" that encodes a member of the bitter taste receptor family, TAS2R.

The investigators identified three coding SNPs giving rise to five forms of the gene. These differing forms of the gene explain the bimodal distribution of taste sensitivity – taster vs. non-taster. Taster ability is associated with specific forms of the gene, demonstrating the direct influence of this gene on PTC taste sensitivity. Studies of the linkage disequilibrium between SNP markers and



Non-tasters may not experience the bitter taste of nicotine, and thus may be at greater risk for smoking.



taster status across unrelated individuals around the world indicate that non-tasters descended from a common ancestor who emerged from Africa many centuries ago.

James Battey, Jr., M.D., Ph.D., Director of the National Institute on Deafness and Other Communication Disorders (NIH) says this about the project: "This research promises to open a pathway to better understanding about what drives certain human behaviors including those associated with smoking and eating. It is this kind of collaboration and focused effort that will yield far-reaching benefit. This is how basic science launches new ways to think about human behavior and its foundations." Based on an article in *NIH News*.

Sunlight and Lakes

Bopi Biddanda, Annis Water Resources Institute

Natural levels of solar radiation entering the water changes the "organic matter soup," resulting in a larger pool of available carbon for organisms and speeding up the aquatic carbon cycle. Sunlight transforms the otherwise hard-to-use carbon from both deep-water regions of lakes and land carbon entering the Great Lakes via rivers, making them more available to lake bacteria.

"Carbon is the central element of life, and there is as much carbon in natural waters as there is on land or the air," states Bopi Biddanda, a researcher at GVSU's Annis Water Resources Institute. "By speeding up the carbon cycle, sunlight can affect the amount of carbon deposited in the bottom of lakes and the ocean. Increased penetration of sunlight containing UV could pose a problem to organisms living in the water and it could affect the amount of food available to fish growing in the lakes."

Researchers found organic matter exposed to sunlight was more quickly consumed by microorganisms present in the water compared to samples kept in the dark. Biddanda and collaborators studied how sunlight affected the movement of carbon in surface water, deep water, and rivers of Lake Superior and Lake Michigan. Their findings show that the phenomenon of "aquatic sunburn" speeds up the movement of carbon through the ecosystem.

Results of this study are reported in the *Journal of Great Lakes Research*, Vol. 29, No. 2, p. 228-241.

These pages are produced by faculty from GVSU.

Teachers: Announcing Biotech Workshops!

Are you looking to increase your knowledge about the relatively new field of biotechnology? This field of science study is revolutionizing life science education. By understanding how genes, proteins and cells interact, people are transforming their perception of what it means to be a living being. All of the new knowledge about the human genome, cloning, genetic screening and gene therapy is creating the need for a new way to educate our students. Join us this upcoming fall semester at the Regional Math and Science Center of Grand Valley State University for this in-depth workshop series designed for secondary and high school teachers.

Faculty members from the Cell & Molecular Biology Program of Grand Valley State University will be teaching this series. Participants will engage in active laboratory experiences, enriching their understanding of specific science concepts. These sessions are part of the on going "[Building Confidence through Content Series](#)" for teachers. The purpose of this series is for teachers to make useful connections between content knowledge and pedagogy to enrich their classroom environments and increase their students' achievements. Much time and attention will be devoted to aligning the content with the Michigan Curriculum Frameworks to make these sessions a valuable resource for teachers.

Five biotechnology science sessions will be held on Thursday afternoons/evenings: October 9, 23, 30 and November 6, and 13 from 4:30–8:30 p.m. Sessions will cover the Molecular Basis for Biotechnology, Human Mitochondrial DNA, Human Genetic Markers, Biotechnology-Past and Present and Analysis of Biotechnology Experiments.

To receive more information, or a registration brochure, contact the Regional Math and Science Center at (616) 331-2267. You may also download the brochure from our website at www.gvsu.edu/rmsc.

Explore Forces in a Fall Workshop

Join us during this upcoming fall, at the Regional Math and Science Center at Grand Valley State University, for a series of workshops focusing on forces, motion, and fun! This course will explore forces as they relate to buoyancy, structure, and motion. Participants will discover Newton's Laws of Motion and use the laws to make sense of everyday phenomenon. The primary focus of the workshop will be to develop a deeper understanding of concepts that relate to force and motion. In addition, teachers will be provided with classroom-tested activities.

These sessions are part of the on-going "[Building Confidence through Content Series](#)" for teachers. Well-known and accomplished science education specialist, Gregg Zulauf, is teaching this series. This in-depth teacher professional development opportunity will focus on providing a richer understanding of specific science concepts and engage participants in interactive learning situations. Participants will use these experiences to enrich their conceptual understanding and teaching methods in science.

Each session is designed to:

- Provide science content that is the foundation for the Michigan Curriculum Framework (MCF).
- Include hands-on activities that can be adapted for classroom use.
- Include discussion and techniques for connecting hands-on experiences with conceptual understanding.

- Provide strategies for: teaching vocabulary, implementing inquiry based lessons, motivating students, and focusing instruction.

Four physical science sessions will be held on Tuesday afternoon/evenings, October 21, and 28, November 4 and 11, from 4:30–8:30 p.m. Sessions will include force and motion from the MCF benchmarks, a study of forces, Newton's Laws of Motion and a study of simple machines. Each participant will build and launch a rocket and a hot air balloon, race a mousetrap vehicle, and engage in other exciting hands-on activities designed for middle and high school teachers.

One graduate college credit is available for participants who are attending all sessions with additional tuition fees and a homework session, is scheduled for Tuesday, December 3. A light supper and all materials are provided.

To receive more information, or a brochure registration application, contact the Regional Math and Science Center at (616) 331-2267, or you can download the brochure from the website at: www.gvsu.edu/rmsc.

Nominate Excellent Inquiry-based Science Teachers!

The Delta Education Awards for Excellence in Inquiry-based Science Teaching will recognize and honor three full-time PreK-12 teachers of science who successfully use inquiry-based science to enhance teaching and learning in their classrooms. The winners receive \$1,500 towards expenses to attend the NSTA National Convention and \$1,500 for personal use. The application deadline is October 15, 2003. For more details visit www.nsta.org/565.



CALENDAR OF EVENTS

SEPTEMBER

18 Thursday

A seminar "Role of the Riverkeeper in the Modern World" will be presented by Bill Rude, the Muskegon riverkeeper, at the Annis Water Resources Institute at 3:00 p.m., Lake Michigan Center in Muskegon.

OCTOBER

3-4 Friday and Saturday

Environmental Education and GLOBE Training for upper elementary and middle school teachers. Focused on atmosphere and hydrology. To be held at the Lake Michigan Center of GVSU in Muskegon from 8:30 a.m.–4:30 p.m. Contact Karen Meyers at (616) 331-2515 or meyersk@gvsu.edu.

7 Tuesday

Animals and Plant Invaders of the Great Lakes, a workshop for teachers by Chuck Pistis of Michigan Sea Grant. Lesson plans and links to state standards will be presented. The workshop will be from 4:00–7:00 p.m. at the GVSU-AWRI Lake Michigan Center at 740 W. Shoreline Drive in Muskegon. There is a \$20 fee for the workshop, and pre-registration is needed. Contact Janet Vail at 728-3601 or vailj@gvsu.edu.

9 Thursday

Building Confidence through Content Series: Biotechnology. For teachers grades 6-12. 4:30–8:30 p.m. Sessions continue October 23 and 30 and November 6 and 13. Contact the Regional Math and Science Center at (616) 331-2267 or download the brochure at www.gvsu.edu/rmsc.

11 Saturday

Trout Unlimited Junior – Canoeing/ Trout Habitat Study at the Rogue River from 9 a.m.–2 p.m. Wittenbach Agriscience and Environmental Center and Wege Natural Area, Lowell, MI. Pre-register with Tammy DeBaar at (616) 987-1002.

16 Thursday

The Role of Episodic Events on the Transport of Biogeochemically Important Materials in Lake Michigan by Tom Johengen, Ph.D. and Director Cooperative Institute of Limnology and Ecosystem Research (CILER) at University of Michigan. 3:00 p.m., Annis Water Resources Institute, Multi-purpose Room, Lake Michigan Center, Muskegon, Michigan.

16-18 Thursday – Saturday

Empowering Mathematics Educators, Michigan Council of Teachers of Mathematics, 54th Annual Conference; Lansing MI. For more information visit the MCTM website at www.mictm.org.

21 Tuesday

Building Confidence through Content Series: Forces, Motion, and Fun. For teachers grades 6-12. 4:30–8:30 p.m. Sessions continue October 28, and November 4 and 11. Contact the Regional Math and Science Center at (616) 331-2267 or www.gvsu.edu/rmsc.

21-22 Tuesday and Wednesday

Lake Michigan: State of the Lake '03. Holiday Inn, Muskegon. Contact Janet Vail at vailj@gvsu.edu or (616) 331-3048 or see www.gvsu.edu/wri.

23 Thursday

Building Confidence through Content Series: Biotechnology. For teachers grades 6-12. 4:30–8:30 p.m. Sessions continue October 30 and November 6 and 13. Contact the Regional Math and Science Center at (616) 331-2267 or www.gvsu.edu/rmsc.

28 Tuesday

Building Confidence through Content Series: Forces, Motion, and Fun. For teachers grades 6-12. 4:30–8:30 p.m. Sessions continue November 4 and 11. Contact the Regional Math and Science Center at (616) 331-2267 or www.gvsu.edu/rmsc.

30 Thursday

Building Confidence through Content Series: Biotechnology. For teachers grades 6-12. 4:30–8:30 p.m. Sessions continue November 6 and 13. Contact the Regional Math and Science Center at (616) 331-2267 or www.gvsu.edu/rmsc.

NOVEMBER

4 Tuesday

Building Confidence through Content Series: Forces, Motion, and Fun. For teachers grades 6-12. 4:30–8:30 p.m. Sessions concludes November 11. Contact the Regional Math and Science Center at (616) 331-2267 or www.gvsu.edu/rmsc.

6 Thursday

Building Confidence through Content Series: Biotechnology. For teachers grades 6-12. 4:30–8:30 p.m. Sessions concludes November 13. Contact the Regional Math and Science Center at (616) 331-2267 or www.gvsu.edu/rmsc.

12 Wednesday

West Michigan Energy Education Workshop. Grade 3-8 teachers may bring a team of three students to learn about energy education. From 9 a.m. to 3 p.m. at the Regional Math and Science Center, Grand Valley State University in Allendale, Michigan. Contact the Regional Math and Science Center at (616) 331-2267 or www.gvsu.edu/rmsc.

13 Thursday

Building Confidence through Content Series: **Biotechnology**. For teachers grades 6-12. 4:30-8:30 p.m. Last session. Contact the Regional Math and Science Center at (616) 331-2267 or www.gvsu.edu/rmsc.

19 Wednesday

Fall Science Update Seminar, "Teaching for 21st Century Skills" from 4:30 to 9:00 p.m. at Grand Valley State University's Allendale Campus, with registration beginning at 4:00 p.m. The program this year features a dinner and three 50 minute break-out sessions. Call (616) 331-2267 for more information.

20 Thursday

Dinoflagellate Cysts in NOBOB Ballast Tank Sediment: Potential Risk of Invasion to the Great Lakes presented by Ying Hong, Research Associate at the Cooperative Institute of Limnology and Ecosystem Research (CILER) of the University of Michigan. 3:00 p.m., Annis Water Resources Institute, Multi-purpose Room, Lake Michigan Center, Muskegon, Michigan.



RMSC is on the Move!

GVSU is truly a university on the move! Due to the recent completion of the new Cook-DeVos Center for Health Sciences on the corner of Michigan and Lafayette in downtown Grand Rapids, over 350 faculty and staff have been relocated over the summer.

As part of this Shuffle 2003, the Regional Math and Science Center (RMSC) general office, staff offices, and professional development classroom have been moved from second floor Padnos Hall to the third floor of Henry Hall. Henry Hall is connected to Padnos Hall on the Allendale Campus, so we haven't moved far.

The new general office for the RMSC is 328 Henry Hall, with staff offices nearby. Our new professional development classroom is 303 Henry Hall. Our phone numbers will all remain the same. Be sure to come and visit us in our new location in the very near future!

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