

InterChange Newsletter

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

April 2014 | Volume 21, Number 3

Michigan Science Olympiad Teams Compete at the Regional Tournament



Saturday, March 29, 2014 marked the 30th year for the Michigan Science Olympiad Region 12 Tournament (MSO) hosted by Grand Valley State University. The Science Olympiad organization is dedicated to improving the quality of science education, creating renewed interest in learning science and providing recognition of exemplary achievement in science education by students and teachers.

[full story](#)

[2014 Michigan Statistics Poster Competition Results](#)

There were more than 600 entries in the thirteenth annual Michigan Statistics Poster Competition for K-12. Judging of the posters took place March 15 on the Allendale campus of Grand Valley State University (GVSU).

[Michigan High School Math & Science Symposium □ Deadline to Register is April 24](#)

The Michigan High School Math & Science Symposium (MHSMSS) will be held on Wednesday, April 30, 2014 at the GVSU Eberhard Center on the Pew Campus of Grand Valley State University in downtown Grand Rapids.

[Professional Learning Opportunities Offered by the RMSC](#)

As you and your district make plans for professional learning for the 2014-2015 academic year, be sure that you are aware of the offerings available through the GVSU Regional Math and Science Center. [Groundswell Presents □ A Healthy Watershed: Magnet for Birds and Butterflies □](#)
On Saturday, April 26, Groundswell will be having a short presentation in the morning that explores the interconnections between watersheds, plants, insects, and birds.

[High School Science Teachers - Register for Green Chemistry Webinar](#)

Students on campuses around the world are expressing a strong interest in sustainability. Educators realize that sustainable chemical innovation is complex and requires a broad and sophisticated mix of approaches and educational strategies.

[23rd Biennial Conference on Chemical Education Coming to GVSU](#)

Empowering Chemical Educators for a Greener Tomorrow! August 3-7, 2014

[Modeling Instruction for High School Chemistry and Physics Teachers](#)

An MSP grant awarded by the Michigan Department of Education is providing a unique opportunity for high school teachers of Chemistry and Physics in Michigan that supports current HSCE and the Next Generation Science Standards.

[Hope College CSI Hosting Summer Programs for Teachers and for Students!](#)

Hope Center for STEM Inquiry (CSI) is hosting a number of programs this summer promoting innovation in Science, Technology, Engineering and Math.

[Upcoming Events at Howard Christensen Nature Center](#)

Multiple events are scheduled for April and May at the Howard Christensen Nature Center.

[Grandparents, Grandkids, and Grand Valley \(G3\) Summer Camp □ Registration Deadline is April 30](#)

G3 is a residential summer camp program for grandparents and grandchildren (ages 8-12) to come together for a three day educational experience.

[Wittenbach/Wege Center Offers Summer Day Camps](#)

Daily themes offer a hands-on learning adventure through hikes, activities, games and crafts that encourages campers to discover and develop an

understanding of, and appreciation for, the out of doors.

[Save the Date for Fall Science Update!](#)

The 30th annual Fall Science Update Seminar hosted by the Regional Math and Science Center at Grand Valley State University (GVSU) will be held this on Wednesday, November 19, 2014.

[Environmental Education Week is April 13-19, 2014](#)

National Environmental Education Week is the nation's largest celebration of environmental education.

[Calendar of Events](#)

[Connections for the STEM Classroom:](#) GVSU Faculty provide engaging ideas on current topics.

This month's topic: Welcome Speech for Region 12 Michigan Science Olympiad Tournament *by College of Liberal Arts and Sciences Dean Frederick J. Antczak*

InterChange Newsletter

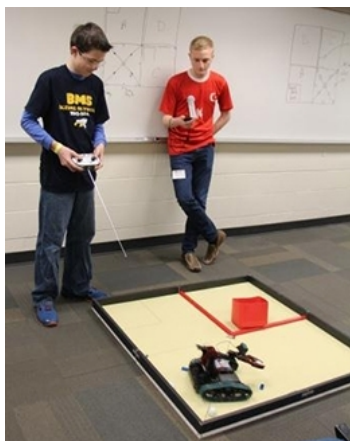
MICHIGAN SCIENCE OLYMPIAD TEAMS COMPETE AT THE REGIONAL TOURNAMENT

[2014 April Home](#)



REGION 12 CELEBRATES 30 YEARS AT GVSU

Saturday, March 29, 2014 marked the 30th year for the Michigan Science Olympiad Region 12 Tournament (MSO) hosted by Grand Valley State University. The Science Olympiad organization is dedicated to improving the quality of science education, creating renewed interest in learning science and providing recognition of exemplary achievement in science education by students and teachers. For many years, GE Aviation and GVSU have been proud sponsors of the Science Olympiad Regional Tournament. This year, the Science Olympiad Region 12 Tournament gained additional sponsorship through Haviland Products Company and Lacks Enterprises, Inc. More than 1,100 students from 66 middle and high schools in Kent and Ottawa counties joined in the excitement of learning through competition. This event is the largest MSO Regional Tournament in Michigan. Top scoring Region 12 teams have typically done well at both the State and National MSO tournaments.



"BRIDGE TO THE FUTURE"

Bridge to the Future was the theme for this year's tournament. In his welcome address, Dean Frederick Antczak of the College of Liberal Arts and Sciences told the Olympians that *You're smart to get involved in science, because you're facing a future that will be fundamentally shaped by its possibilities and consequences.* He pointed out that, in their lifetimes, humankind may encounter forms of life that are genuinely extraterrestrial, develop means of instant communication that will put our iPhones to shame, live to be 150 years old, and make advances in the medical fields. Then he added, *And of course your generation will face extraordinary challenges involving the environment.* In a passionate closing he wanted all the Olympians to know that: **YOU** could be the person who cures spina bifida in infants, or Alzheimer's in older people, or some form of cancer. **YOU** could be the first human to walk on celestial objects beyond the Moon and Mars. **YOU** could make breakthrough discoveries in energy that will protect both the environment and our quality of life. [Dr. Antczak's complete speech can be found here.](#)



TEAMS ADVANCE TO THE STATE TOURNAMENT

This year, ten middle schools from our region will be competing at the MSO State tournament at Michigan State University on April 26th 2014. In order of 1st place to 10th place they are: Lakeshore Middle School, Grandville Middle, Jenison Jr. High, Chandler Woods Charter, East Grand Rapids, Harbor Lights, Plymouth Christian, Macatawa Bay, White Pines, and Allendale Middle school. High school teams advancing to the MSO State tournament in order of 1st place to 6th place are: Grand Haven, Grand Rapids Christian, Plymouth Christian, West Ottawa, Forest Hills Central, and Grandville High Schools. Over the years, students who have participated in the spirit of MSO have developed strengths in problem-solving abilities and critical thinking skills, while gaining a deeper understanding of science. These skills follow them in life, influencing graduate studies and careers in science research, teaching, medicine, and other science-related jobs. A BIG thank you goes out to all of this year's participating teams and coaches, volunteers and event supervisors. Their dedication to education and science has touched thousands of students lives throughout the years. Kent and Ottawa County Science Olympiad teams will be invited back for next year's MSO Regional Tournament on March 28, 2015.

InterChange Newsletter

2014 MICHIGAN STATISTICS POSTER COMPETITION RESULTS

[2014 April HOME](#)



There were more than 600 entries in the thirteenth annual Michigan Statistics Poster Competition for K-12. Judging of the posters took place March 15 on the Allendale campus of Grand Valley State University (GVSU). Statisticians and mathematics educators from GVSU and other institutions had a very difficult task determining the winners from among so many interesting and well-done posters.

Entries were judged in four grade level categories: K-3, 4-6, 7-9, and 10-12. Students were permitted to work in groups of up to 4 members except for the K-3 category where students were permitted to work as a class. Monetary prizes and plaques will be awarded to the winning students and their schools. The first place posters in each grade category are:

- K-3: "Time Out" by Joseph McClelland, Ada Vista Elementary, Ada
- 4-6: "Who's Multiplying Faster- Europe or Africa?" by Amara Thompson and Pete Beckholt, Riley Street Middle School, Hudsonville
- 7-9: "Do Spinach Disks Need a Light Snack" by Scott Hadley, Kent ISD - ATYP, Grand Rapids
- 10-12: "Does Time of Day Affect Flexibility" by Annie Lee, Saline High School, Saline

The poster competition committee wishes to express its thanks to the many teachers around the state that participated in this years competition. We look forward to seeing your students fantastic ideas put on poster board again next year. All of the winners will be posted soon at the competition web site at <http://www.gvsu.edu/stat/statposter>. All first, second and third place winners have been notified via email.

The competition is sponsored by the Regional Math and Science Center at GVSU, the GVSU Department of Statistics, and The Michigan Council of Teachers of Mathematics.

MICHIGAN HIGH SCHOOL MATH AND SCIENCE SYMPOSIUM □ DEADLINE TO REGISTER IS APRIL 24



[2014 April HOME](#)

The Michigan High School Math and Science Symposium (MHSMSS) will be held on Wednesday, April 30, 2014 at the GVSU Eberhard Center on the Pew Campus of Grand Valley State University in downtown Grand Rapids.

Students have three ways to participate in the Symposium.

- The symposium gives students who have worked on a science research project under the mentorship of a teacher or scientist the opportunity to give an oral presentation of their research findings to a group of peers in a setting that resembles a meeting of professional scientists. Colleges and universities have looked very favorably upon students who have presented their research in this type of forum. Many former participants have received recognition and scholarships for the research work they have done.
- Students who are just beginning their research as 9th or 10th graders may choose to apply for the limited number of poster presentation slots available. Due to space restraints in the Eberhard Center, we can accept only the first twenty posters registered. Poster presenters will be listed, but abstracts for posters will not be included in the MHSMSS abstract booklet.
- As in the past, teachers are invited to bring students as observers who may be interested in research or contemplating a project for the next academic year. We will also be asking teachers to volunteer to be room moderators in the oral presentation rooms. They will introduce the presenters and monitor the question and answer period.

Registration fees paid before April 16 are \$20 for presenters and \$10 for observers. (The fees jump to \$25 and \$15 respectively after that date.) Registration fees cover morning refreshments, lunch, program, and the MHSMSS abstract booklet. This abstract booklet contains the proceedings of the symposium spotlighting the students presentations and achievement in science and is sent to all colleges and universities in Michigan.

Call the GVSU Regional Math and Science Center at (616) 331-2267 or visit www.gvsu.edu/rmsc for Registration Information, Guidelines, FAQ, and Call for Proposals. All applications are due by April 24, 2014. For additional information, contact the state coordinator, Paul Bigford at paulbigford@hotmail.com or call (231) 898-2633.

InterChange Newsletter

PROFESSIONAL LEARNING OPPORTUNITIES OFFERED BY THE RMSC

[2014 April HOME](#)

Professional Learning for You!

As you and your district make plans for professional learning for the 2014-2015 academic year, be sure that you are aware of the offerings available through the GVSU Regional Math and Science Center. These opportunities include scheduled workshops held on the GVSU Allendale Campus, best practice sessions at your school / district site, and annual conferences. The following are highlights of these programs for the upcoming school year. Watch the RMSC website www.gvsu.edu/rmsc for more detailed information.

Scheduled Workshops:

(Registration materials for these workshops will be available on the RMSC website by May 15, 2014.)

- **Orchestrating Mathematics Discussions in the High School Classroom**
 - Audience: Secondary mathematics teachers of algebra
 - Dates: October 7, November 13, & December 12, 2014
 - Location: GVSU Allendale Campus
 - Description: Based on the *5 Practices for Orchestrating Productive Mathematics Discussions* and materials developed through the award-winning PRIME program, this workshop will provide teachers with concrete guidance for engaging students in meaningful discussions around mathematics in a way that is accessible and manageable for teachers. The content used for examples will be algebra-based.
 - Facilitators: Chelsea Ridge & Karen Meyers
 - Cost: \$60 per person for the series; grant funds are available to assist with substitute reimbursement costs.
- **Writing in Science:**
 - Audience: Secondary science teachers
 - Dates: October 14 & November 5, 2014
 - Location: GVSU Allendale Campus
 - Description: This workshop is designed to help teachers learn how to incorporate writing strategies into science instruction. In this two-day *Writing in Secondary Science* series, teachers will: 1) learn instructional strategies to increase student comfort and ability to write and communicate in science; 2) become familiar with the *Writing across the Curriculum: Science* document from MDE; 3) use these strategies in a lesson with students and share results with colleagues. There will be a focus on Argumentation, one of the NGSS Science and Engineering Practices.
 - Facilitators: Kathy Agee & Karen Meyers
 - Cost: \$40 per person for the two days; grant funds are available to assist with partial substitute reimbursement costs.

Conferences:

- Fall Science Update □ Wednesday, November 19, 2014 □ GVSU Pew Campus (downtown Grand Rapids). Cost: \$45 per teacher.
- Math In Action □ Saturday, February 21, 2015 - GVSU Allendale campus. Cost: \$30 per teacher.

Best Practices for School / District Level Professional Learning

- **Math Talk**
 - Audience: K-8 Teachers, Administrators, Instructional Coaches
 - Recommended Length : A variety of options are available for districts to consider: Two six-hour days with 3 hours of coaching; Four three-hour days with 3 hours of coaching; Three five-hour days; or Five three-hour days.
 - Description: This is a workshop to develop students abilities to communicate mathematical thinking. Standardized testing associated with the Common Core State Standards for Mathematics is moving toward assessing students abilities to □ construct viable arguments and critique the reasoning of others □ [SMP 3]. This kind of Math Talk requires intentional instruction. Join us as we explore instructional strategies for developing students communicating and reasoning skills.
 - Facilitators: Drs. Esther Billings & David Coffey
 - Cost: Negotiable (but minimal); dependent on number of teachers and location.
- **Sam3: Science and Mathematics Misconceptions Management**

- Audience: Grades 5 – 9 Math and Science Teachers
 - Recommended Length of Time Required: Three full days for complete workshop
 - Description: The goal of the SaM3 professional development program is to increase a teachers ability to elicit and address student misconceptions, utilizing the content areas of Energy (science) and Fractions (mathematics) as a context for applying misconception management strategies. Connections will be made to the mathematics practices of the CCSS and the science and engineering practices of the NGSS.
 - Teacher teams who participate in this SaM3 training will gain:
 - Increased core content knowledge in the focus areas of Fractions (mathematics) and Energy (science) across the disciplines.
 - Increased understanding of common student misconceptions in their content area.
 - A set of misconception management strategies to teach for understanding.
 - Usable lesson plans to use and examine through the year.
 - Skills in analyzing student work for understanding.
 - Cost: Negotiable; dependent on number of teachers and location; grant funds available.
- Developing Powerful Measurers
 - Audience: Grades K-5 teachers
 - Recommended Length: 2 – 3 full days
 - Description: The *Developing Powerful Measurers* workshop series is the outgrowth of an NSF funded project: *Strengthening Tomorrows Education in Measurement (STEM)* with Dr. Jack Smith from Michigan State University. The purpose of the project is to enrich the classroom experience of students and teachers for spatial measurement (length, area, and volume) especially in the elementary grades. Participants in this workshop series will discuss the conceptual, procedural, and conventional knowledge needed for success in the area of measurement. Elements of conceptual knowledge needed for effective teaching and learning in measurement (and its importance) such as the meaning of length, unit iteration, unit-measure compensation, unit conversion, and zero/scale on a ruler will be addressed.
 - Facilitators: Karen Meyers & Chelsea Ridge
 - Cost: Negotiable; dependent on number of teachers and location.
- Family Engineering for Teachers
 - Audience: K-6 Teachers
 - Recommended Length: One afterschool session (two to three hours long)
 - Description: Modeled after the popular Family Math and Family Science Nights, Family Engineering is a program developed to actively engage parents and their children in fun, hands-on engineering activities and events. (Engineering and engineering practices are new areas of emphasis in the Next Generation Science Standards, which need to be incorporated into K-12 classrooms.) Through this workshop, teachers and administrators will learn how to engage elementary children & parents in learning about what engineers do and the role engineering plays in all aspects of our lives. The program is also appropriate for classroom use. Visit Family Engineering at: <http://www.familyengineering.org/> to learn more about this new national program.
 - Cost: Negotiable; dependent on number of teachers and location.

InterChange Newsletter

GROUNDSWELL PRESENTS □ A HEALTHY WATERSHED: MAGNET FOR BIRDS AND BUTTERFLIES □

[2014 April HOME](#)

On Saturday, April 26, Groundswell will be having a short presentation in the morning that explores the interconnections between watersheds, plants, insects, and birds. We will highlight the important role that urban green spaces can play in restoring watershed health and protecting biodiversity. This presentation will highlight ways to attract birds and butterflies to our yards, parks, and school and church grounds, even in highly urbanized settings. This practice has multiple benefits for managing stormwater runoff and improving the quality of urban streams such as Plaster Creek. The event is from 9 a.m. to noon at the Bunker Interpretive Center at Calvin College.*

After the presentation, we will be going to a local urban green space for some volunteer planting and restoration work! Please RSVP to: gheffner@calvin.edu

For more information, please visit the Calvin College Plaster Creek Stewards [webpage](#).

*NOTE: Calvin will be hosting a 5k on April 26, so some of the College's entrances will be closed. To get to the Bunker Center, please use the East Beltline entrance near the Youngsma Center (1580 East Beltline). This entrance is at the north end of the large parking lot near the Bunker Center, closer to the intersection of the East Beltline and Lake Drive.

InterChange Newsletter

HIGH SCHOOL SCIENCE TEACHERS - REGISTER FOR GREEN CHEMISTRY WEBINAR



[2014 April HOME](#)

Students on campuses around the world are expressing a strong interest in sustainability. Educators realize that sustainable chemical innovation is complex and requires a broad and sophisticated mix of approaches and educational strategies. Green chemistry offers an important set of design principles that successfully fuels sustainable innovation.

To date, green chemistry education has been targeted at chemistry courses. In this webinar, Dr. Julie Haack will describe what faculty at the University of Oregon have learned from infusing green chemistry into the general science curriculum. She will describe the exciting opportunities and challenges associated with this work and also highlight some of the emerging design strategies that are proving catalytic in developing new educational materials to meet the emerging demand.

Date: May 14, 2014

Time: 3:30-4:40 p.m.

Register on the Michigan Green Chemistry Clearinghouse at <https://migreenchemistry.org>

Presenter:

Julie A. Haack, PhD Coordinator Green Product Design Network Assistant Department Head and Senior Instructor Department of Chemistry and Biochemistry University of Oregon

InterChange Newsletter

23RD BIENNIAL CONFERENCE ON CHEMICAL EDUCATION COMING TO GVSU



[2014 April HOME](#)

Empowering Chemical Educators for a Greener Tomorrow

August 3-7, 2014 Grand Valley State University Allendale, Michigan USA

Sponsored by The Division of Chemical Education of the American Chemical Society

Register now to attend the 23rd BCCE. You can register online at the official BCCE website (<http://www.bcce2014.org>). Register before June 1st, 2014 for discounted rate. If you register before June 1st regular registration is \$300 and high school educators can register for \$175.

The program will provide a variety of workshops, presentations, plenary speakers, and exhibits for teachers of chemistry at all levels. See the website for a list of workshops and symposia. The plenary speakers include:

- **John C. Warner**, President of Beyond Benign Foundation and CTO for Warner Babcock Institute for Green Chemistry
- **Lennie Scott-Weber**, Director of Education Environments for Steelcase Education Solutions
- **Charlie Bamforth**, Anheuser-Busch Endowed Professor of Malting and Brewing Sciences and Distinguished Professor at UC Davis
- **Holly Walter Kirby**, Founder of Fusion Science Theater and instructor of chemistry and playwriting at Madison Area Technical College

Workshops specifically for High School Teachers:

- I Teach AP Chemistry-Are Inquiry Labs Necessary?
- Engineering: The Missing Piece of the Puzzle
- Microscale chemistry from the United Kingdom
- The POGIL Project Workshop: POGIL in High School Chemistry Courses
- Atoms, Molecules, and Ions, Oh My! Particulate Level Chemistry Inquiry Activities
- Teaching and Learning Inquiry in Chemistry Using Bonding
- Successful Inquiry Labs for AP Chemistry
- ChemSource, the NGSS, and the Particulate Nature of Matter
- Putting the Green in the Next Generation Science Standards

For information about housing and travel to Allendale, please visit the conference website at <http://www.bcce2014.org> For questions, email: bcce2014@gvsu.edu.

InterChange Newsletter

MODELING INSTRUCTION FOR HIGH SCHOOL CHEMISTRY AND PHYSICS TEACHERS

[2014 April HOME](#)

An MSP grant awarded by the Michigan Department of Education is providing a unique opportunity for high school teachers of Chemistry and Physics in Michigan that supports current HSCE and the Next Generation Science Standards. The professional learning is designed as an immersion model where teachers learn from national facilitators and Michigan practitioners using the same techniques and materials they will utilize with their students. Participants will rotate through roles of student and instructor as they practice and engage in guided inquiry and cooperative learning. Strategies for raising the level of discourse during classroom discussions and student presentations will be emphasized.

Please join us for 15 days of training that will transform your teaching! Teachers will receive stipends of \$1,500, SCECHs & graduate credits opportunities, and some travel reimbursements will be available.

Workshops will be held at two locations in West Michigan:

Chemistry Modeling Workshop

Kent ISD □ Grand Rapids June 18-July 10 (No class July 3rd and 4th)

Physics Modeling Workshop

MAISD Regional Math and Science Center □ Muskegon June 19-July 11 (No class July 3rd and 4th)

Workshops are being held through the state. For more information & to apply, please visit: www.mimodelinginstruction.org. Initial screening and acceptance of applicants will start on Monday, April 28, 2014.

InterChange Newsletter

HOPE COLLEGE CSI HOSTING SUMMER PROGRAMS FOR TEACHERS AND FOR STUDENTS!



[2014 April HOME](#)

Hope Center for STEM Inquiry (CSI) is hosting a number of programs this summer promoting innovation in Science, Technology, Engineering and Math.

Middle School Programs include:

Everest Trek Summer Science Half Day Middle School Academies

High School Programs include:

Nuclear Forensics Watershed Investigations Engineering the Future

Teacher STEM Workshops include:

Watershed Investigations Molecular Modeling Nuclear Forensics Dune Measurements Teaching and Learning with Monarch Butterflies

For more information and to register, visit www.hope.edu/csi/index.html

InterChange Newsletter

UPCOMING EVENTS AT HOWARD CHRISTENSEN NATURE CENTER

[2014 April HOME](#)

Earth Day - Volunteer Day - Celebrate Earth Day with HCNC - FREE

April 19, Saturday Free - 10:00 a.m. - 1:00 p.m. This event will feature exhibits, displays, and activities aimed at educating Kent County about protecting our environment. Bring the family join in the activities: Water activities, planting of seedlings/flowers, and help planting a garden. Join us outside for volunteering in beautifying our property. We will be painting, raking, sweeping, fixing boardwalks, building better animal sanctuaries and so much more.

Arbor Day

In Partnership with National Wildlife April 26, Saturday Free - Free 10:00 a.m. - 1:00 p.m. FREE Come get your Free Trees (each volunteer that helps plant will receive a tree or more) Join HCNC and National Wildlife Federation for planting 500 Black Walnuts and Sugar Maple Trees! The event is for ages 7 - 108, please bring your parents, grandparents and others to help! Join us as we have collaborated with "National Wildlife Federation" that is donating the trees. This will be an environmental learning time; all about Michigan native trees along with a wonderful time of beautifying HCNC - the paradise we have come to know! You'll even receive a free tree!

Jiggly Wiggly Frog Hunting

May 4, Sunday 2013 6:00 p.m. - 8:00 p.m. Donation of \$5.00 per person HCNC will go Frog Hunting for the learning of frogs - not to capture forever - but to study their habitats and mannerisms. First, we will learn (short fun lesson with refreshments) about the frogs in Michigan and why they are so important to our environment and a lot of other fun Froggy facts will be toad.told! Then around dusk, we will go hunting frogs. We are going to get down in the pond areas with flashlights and try to find us some frogs for studying. This is for ALL ages - so Mom/Dad, Grandma and Grandpa, bring the children and have a fun filled night of sneaking around capturing frogs (at the end of the night we will release our frogs back into the wild). Dress appropriately and stay tuned for upcoming information about this fun filled evening at HCNC.

Morel Mushroom Hunting

May 18th, Sunday 1:00 p.m. - 3:00 p.m. Donation \$4.00 per person Join a Seasoned Mushroom Hunter and let us see how many of these tasty morel mushrooms we can find! We will be going off trails - this is why a guide is best! Starting the night with a mushroom presentation on the where, why and how's of mushroom, then go on a hunt for the tasty morals, and at the end of our hunt receive some refreshments.

For more information contact Cindy Perski at Howard Christensen Nature Center at (616) 675-3158 office or (616) 325-4554 cell.

InterChange Newsletter

Grandparents, Grandkids, and Grand Valley (G3) Summer Camp □ Registration Deadline is April 30



[2014 April HOME](#)

G3 is a residential summer camp program for grandparents and grandchildren (ages 8-12) to come together for a three day educational experience. Families will spend their time together on the Grand Valley State University campus for three days and two nights sleeping in the living center apartments and eating in the common dining halls along with college students and others on campus.

This years G3 Camp will be held June 24 - 26, 2014 on the Grand Valley Allendale campus. Housing, meals, and sessions are all inclusive.

Class sessions are taught by GVSU faculty and staff and will involve grandparents and grandkids experiencing adventures in a variety of the sciences, mathematics, art, poetry, music, and law enforcement, plus many more! In the evening, there will be various activities that families may choose to attend. On the final day, a graduation luncheon ceremony will be held.

This summer camp is sponsored by the Regional Math and Science Center and the College of Liberal Arts and Sciences (CLAS). Registration closes on April 30, 2014. More information is available by calling the Regional Math and Science Center at (616) 331-2267.

InterChange Newsletter

WITTENBACH/WEGE CENTER OFFERS SUMMER DAY CAMPS

[2014 April HOME](#)

June 16th - 19th, 2014 (Monday - Thursday)

Daily themes offer a hands-on learning adventure through hikes, activities, games and crafts that encourages campers to discover and develop an understanding of, and appreciation for, the out of doors. Choose a camp by grade and attend a half day of exploration. Fee is \$80 per session and includes snacks, drinks and craft supplies. Class size is a maximum of 15 students per session with a minimum of 5 students per session. In the event of severe weather, sessions will be held indoors. Call (616) 987-2565 or email mjohnson@lowellschools.com to register.

RIBBITS AND CROAKS CAMP is for campers entering grades K-2 in the fall of 2014. Camp runs from 9:00am to 12:00noon each day. Hop, crawl or slither on in for an animal adventure in search of frogs, toads, salamanders, turtles and snakes! Young herpetologists will explore the creek, study the forest floor and roll logs in search of our coldblooded friends. Eat like salamanders, sing like frogs and hop like toads! You'll be hoppy you came!

BEEES AND BEEKEEPING CAMP is for campers entering grades 3-5 in the fall of 2014. Camp runs from 1:00pm to 4:00pm each day. Bee amazed and get the latest buzz on honey bees! Discover their life cycle, explore their jobs in and out of the hive, decipher the waggle dance, grasp their contribution to agriculture and why they only sting once. Be busy as a bee by becoming a beekeeper suit up in protective clothing to visit the onsite apiary, learn how to use a smoker and hive tools, examine frames for the brood chamber and honey comb, reveal where the queen is hiding in the colony and harvest honey for taste testing. Each day will fly by with new adventures including trekking the trails, creative crafts, guessing games and science sleuth experiments.

Save the Date for Fall Science Update!



[2014 April HOME](#)

The 30th annual Fall Science Update Seminar hosted by the Regional Math and Science Center at Grand Valley State University (GVSU) will be held this on Wednesday, November 19, 2014. Our theme for the upcoming event is □ *Celebrating Science Education: Past, Present, Future.* □

The keynote speaker will be master teacher Larry Fegel. During his presentation, he will share the successes and challenges of over 40 years of teaching science in West Michigan, as well as what he foresees for the future of science education.

The cost is \$45 per person, \$20 pre-service teacher, or \$10 pre-service teacher without lunch.

Please plan on joining us at GVSU for this all-day conference of collegiality and rich science content. Please mark your calendar and watch for more details on our website at

www.gvsu.edu/rmsc soon.

InterChange Newsletter

ENVIRONMENTAL EDUCATION WEEK IS APRIL 13-19, 2014

[2014 April HOME](#)

Sponsored by Samsung, National Environmental Education Week (EE Week) is the nation's largest celebration of environmental education. It is held each year the week before Earth Day and inspires environmental learning and stewardship among K-12 students. The 2014 theme, "Greening STEM: Engineering a Sustainable World", will explore the application of engineering to sustainable solutions for a healthier planet and healthier people.

Since its inception in 2005, EE Week has reached millions of students and educators across the United States with non-biased, high-quality, environmental education materials grounded in accurate, timely scientific information and tied to local, state and national learning standards.

Visit eeweb.org/ for resources and offerings for EE Week 2014, including STEM & Engineering info, annual photo contest info, educator toolkits and EE Week registration information. Register for EE Week to receive updates and to take full advantage of the benefits of EE Week. Then help spread the word by sharing EE Week with others!

And don't forget to celebrate Earth Day with your students on Tuesday, April 22!

Earth Day Activities

No matter where you are located in Michigan, we invite you to join the celebration of Earth Day. Follow this link to find the activities in your region. You will find the event name, location and a brief description as well as a link to the webpage for more information.

http://www.michigan.gov/deq/0,4561,7-135-3307_3580-186672--,00.html

InterChange Newsletter

Connections for the STEM Classroom

[2014 April HOME](#)

WELCOME SPEECH BY COLLEGE OF LIBERAL ARTS AND SCIENCES DEAN FREDERICK J. ANTCAZAK
REGION 12 MICHIGAN SCIENCE OLYMPIAD TOURNAMENT SATURDAY, MARCH 29, 2014



"Good morning and welcome to the 30th Michigan Science Olympiad, at GVSU.

I want to give you a quick welcome, do some acknowledgements and ask you a very serious, very personal question.

First of all, are there any scientists in the house?

It's a special pleasure for the College of Liberal Arts and Sciences to host this tournament annually. GVSU aims to deliver an education for lifelong learning, and of course that must embrace the critical thinking, hypothesizing, observation and (as Jefferson said) following the truth wherever it leads that is fundamental to the sciences. And I'm tickled that we can provide all of you student-Olympians with the opportunity to be here, to experience our campus, and to get involved in the scientific discovery and learning that is just plain necessary for academic success.

Another reason GVSU loves the Science Olympiad is that we're always proud to be part of this wonderful outreach to K-12 Education. One of Grand Valley State's values is to offer the communities it serves resources and inspiration in their own lifelong pursuit of knowledge. I want to say especially to teachers: **you are always welcome here.**

Speaking of teachers, I want to recognize the commitment, and the devotion, of Grand Valley faculty and staff for their many years of supporting the Olympiad. I know a little about the preparation they put into making today's event challenging and fun, and I appreciate their special contribution very much. Let's give it up for all the teachers, at your school and ours.

We also have a very special guest, GV President **Tom Haas**, himself an accomplished chemist.

I want to say to the Olympians: you're smart. You're smart to get involved in science, because you're facing a future that will be fundamentally shaped by its possibilities and consequences. In your lifetime, humankind will begin the exploration of the Solar System and maybe encounter for the first time, on Mars or Europa or Titan, forms of life that are genuinely extraterrestrial with all the profound biological, political and religious implications that will have. In your lifetime, we will develop means of instant communication that will put our puny I-Phones to shame and put everything from journalistic standards to interpersonal communication at risk. I suspect that the first human being (since Methuselah) who will live 150 years has already been born. And she or he may be in this room. The new medical and pharmaceutical techniques, nanotechnology and genetic engineering that will make that possible will also raise a lot of profound questions that your generation, the people in this room, will have to answer.

And of course your generation will face extraordinary challenges involving the environment. How will the Earth support 10 billion people? Since Grand Rapids is a world leader in sustainable business, what can we do to create (and what will we have to give up for) a sustainable economy? What difficulties will Global Climate Change bring, and which can we still avert? Will your generation be able to offer to your kids and grandkids and everyone in their generation education equal to (or better than) yours?

I just want every single Olympian in this world to hear this:

YOU could be the person who cures spina bifida in infants, or Alzheimer's in older people, or some form of cancer.

YOU could be the first human to walk on celestial objects beyond the Moon and Mars.

YOU could make breakthrough discoveries in energy that will protect both the environment and our quality of life.

Humankind desperately needs those scientific breakthroughs. So here's my question: Why **not** you?"