NOTES FROM THE DIRECTOR

We invite you to visit the Math and Science Center Resource Room (Note 12) and investigate the materials that can be helpful in adding more hands-on activities to your math and science teaching. Most materials are available for checkout for two weeks, and some may be checked out for longer terms. Multiplication/Housing Cookbooks are available to add to your classroom permanently, or on loan if you do not want to keep them.

Your Summer Science Seminar is an opportunity to explore the mathematics and science in your home or at your school during your summer break. We are committed to providing you with a variety of topics to choose from so that you can find something that interests you and is appropriate for your students. The seminars have explored numerous themes over the years. This year’s theme, “Increasing Scientific Literacy,” has been a popular one with seminars averaging 34 participants in the fall.

The final seminar of the 2016-2017 series is part of this year’s North Carolina Science Festival. All seminars are open to everyone, are free, and offer license renewal credits (0.2 per seminar) to teachers. The seminars are held in room 124C in the Reich College of Education Building from 6:30-8:00 p.m., with refreshments at 6:00. The remaining seminar in this year’s series of seminars is: April 13, 2017: Andy Heckert (Geology), “Dinosaurs and STEM: Using ‘Terrible Lizards’ to Teach Paleontology, Geology, Biology and More”

This year’s theme, “Increasing Scientific Literacy,” has been a popular one with seminars averaging 34 participants in the fall. The seminars have explored numerous themes over the years. We are considering themes for next year; if you have ideas of themes that you would like to see explored, please share them with me at johnsnpe@appstate.edu. Once they are finalized, next semester’s seminars will be announced on our website and will start in September 2017.

KEEP UP WITH MSEC ACTIVITIES

We are pleased with the continuing popularity of our math and science programs for schools. This year has seen an increase in requests for math and science programs both on and off campus, and we have been able to accommodate most of them. Family Math Nights with Dr. and Mrs. Bill McGalliard remain one of our most popular programs in the schools. The McGalliards visit area elementary and middle schools and involve families working together on activities that emphasize problem solving, logical thinking, numbers and operations, geometry, and spatial thinking and patterns. Participants enjoy the math puzzles and games and go away with a renewed interest and excitement about mathematics. Other programs that we can schedule for your schools include a variety of topics in Geology for Grades 3-9 and Family Science Night for elementary and middle schools.

Unfortunately, we are not able to offer as many family science nights as we have in the past due to lack of personnel, but we are working to get more science educators involved in the program. If you are interested in exploring programs in areas of math or science not mentioned here, let us know, and we will explore putting together a program to meet your needs. You may explore working with the MSEC site for mathematics and science activities taking place at Appalachian on our website, www.msec.appstate.edu, and at http://stem.appstate.edu. Print copies of the newsletter are widely distributed, and the newsletter is available on the MSEC website, www.msec.appstate.edu, for further information on these or other programs.
in your math and science teaching. Check-out period; ask Leah about these when you visit the Math/Science Center. Magatagar Hsing Coworkers are also available for classrooms. You are invited to come in for a visit and see what we have that could be of use to you in incorporating more hands-on activities in your math and science teaching.

NORTH CAROLINA SCIENCE FESTIVAL, April 7-23, 2017

North Carolina STEAM Science, Technology, Engineering Arts and Mathematics) Expo will be held on campus on Friday, April 7 as part of the seventh annual North Carolina Science Festival. The Expo event will be in the Holmes Convocation Center from 9:00 am – 2:00 pm with other on-campus events in Peace Student Union and other on-campus sites. The STEAM Expo is on a weekday so that schools can come to campus for a field trip and have their students experience some awesome science and math activities. Approximately 2000 students annually participate in Appalachian’s Expo activities. This year’s MEC Expo booth will have a number of displays along with science activities led by Judy Sri and Lou Moore, science educators who for many years have done the popular Center-sponsored Family Science Nights. For more information about STEAM Expo and other activities taking place at Appalachian State University during the festival, visit http://ncsciencefestival.appstate.edu. To book your class or for school group for the Expo, contact Tracey Taidiff (taidiff@appstate.edu) or 828-262-7609 for more information or visit the Math and Science Education Center, which is located in the Cuma School of Science and Mathematics 2017 applications were due January 15, 2017, for the programs to be held at Appalachian State University, East Carolina University, and The University of North Carolina at Charlotte. The program is open to only three campuses this summer and we continue to have many eligible students apply. The program is free and high school students apply during their sophomore or junior years. Summer Ventures is coordinated through the Office of Undergraduate Research and NC State University, Department of Science and Mathematics, and students study and conduct research for four weeks on a university campus. An Appalachian Director is available for school visits to share recruitment program information. Please contact Lori (tylerle@appstate.edu) or visit http://www.ncsc.edu/summerventures.

NCSSM WORKING WITH EDUCATORS & SCHOOLS
Do you know that there are many resources available to teachers provided by the North Carolina School of Science and Mathematics (NCSSM)? NCSSM hosts a variety of professional development initiatives including: a blog, “Learning Innovations,” where educators can share their experiences using innovative classroom strategies; Vibe, a peer-to-peer mentoring program; a June 2017 Summer Teacher Camp that can bring students to conferences and events on the NCSSM campus throughout the year; In addition to students applying to either the NCSSM residential or out-of-state programs, NCSSM is offering the NCSSM in K-STEM enrichments as well as Interactive Video Conferencing courses, which are tuition-free, and offer opportunities for students to take advanced coursework that may not be available at their local school. The 2017-2018 course catalog is now available. For further information, explore http://www.ncssm.edu/ for educators and https://www.ncssm.edu/vi-course.

ACADEMIC SUMMER CAMPS AT APPALACHIAN STATE UNIVERSITY
Many academic camps for students are offered at Appalachian each summer. Be sure to check out the Office of Continuing Services at http://conferences.appstate.edu/youth-camps. The Future Doctors and Scientists Camp is being supported by the MEC, and we encourage all students in grades 9-12 who are interested in health science and/or research professions to apply. The Department of Geology and the Department of Mathematics are hosting a four days of intensive clinical instruction using a program called The Apprentice Doctor and the remainder of the program will involve research in a biomedical sciences laboratory. Other academic camps for students include two sessions of Anatomy & Physiology, Forensic Anthropology, and Forensic Science. Multiple sessions of the Future Engineers Camp will be held at the NC Center for Engineering Technologies in Hickory. Please share these summer academic opportunities with students.

SUMO BOTS RETURN TO THE NORTH CAROLINA SCIENCE FESTIVAL
April 8-11 will see more SumoBots. After breaking all expectations last year with over 100 teams registering Appalchian State will again host the event. Although divisions will depend on registration numbers, expect several youth teams to get into the fields. Some ideas coming up are Sumo Boats, Sumo Robots, Sumo Sumo Sumo http://www.appstate.edu/marlab/robots/suomasons.htm.

GEOLOGY AND ART DEPARTMENTS CREATE NEW EXHIBIT
Teachers and students who visit the Appalachian Geology Museum and Fred Heckert’s artist exhibits can now see a new life-size model of the animal. Art students used a variety of digital technologies to create models for reference and will ultimately create the model that is used for bronze casting that will be made. They will also have a booth where visitors can see the work in progress. In the future, the model will be made available at the Outdoor Geology Laboratory in a special exhibit. Art students and the Appalachian Art Department resulted in the idea for a life-size model of the animal. Art students used a variety of digital technologies to create models for reference and will ultimately create the model that is used for bronze casting that will be made. They will also have a booth where visitors can see the work in progress. In the future, the model will be made available at the Outdoor Geology Laboratory in a special exhibit. Art students and the Appalachian Art Department resulted in the idea for a life-size model of the animal. Art students used a variety of digital technologies to create models for reference and this year’s MEC Expo booth will have a number of displays along with science activities led by Judy Sri and Lou Moore, science educators who for many years have done the popular Center-sponsored Family Science Nights. For more information about STEAM Expo and other activities taking place at Appalachian State University during the festival, visit http://ncsciencefestival.appstate.edu. To book your class or for school group for the Expo, contact Tracey Taidiff (taidiff@appstate.edu) or 828-262-7609 for more information or visit the Math and Science Education Center, which is located in the Cuma School of Science and Mathematics 2017 applications were due January 15, 2017, for the programs to be held at Appalachian State University, East Carolina University, and The University of North Carolina at Charlotte. The program is open to only three campuses this summer and we continue to have many eligible students apply. The program is free and high school students apply during their sophomore or junior years. Summer Ventures is coordinated through the Office of Undergraduate Research and NC State University, Department of Science and Mathematics, and students study and conduct research for four weeks on a university campus. An Appalachian Director is available for school visits to share recruitment program information. Please contact Lori (tylerle@appstate.edu) or visit http://www.ncsc.edu/summerventures.

The ASU Math Contest has been held since 1979. Check out an article recently published by Jeff Cloninger that highlights the Math Contest: Appalachian to host qualifying event for NCCTM State Mathematics Contest at http://www.news.appstate.edu/2017/01/01/mathematics-contest.

NCCTM Spring Leadership Seminar
The NCCTM Spring Leadership Seminar will be held on March 24 at the Greensboro-High Point Marriott Airport Hotel. The theme of the seminar is “What’s Your Message?” The speakers will be Gary Martin, individuals from the North Carolina Collaborative for Mathematics Learning and the mathematics consultants from the North Carolina Department of Public Instruction. Dr. Martin is currently the Emily R. and Gerald S. Leischuck Endowed Professor in the Department of Curriculum and Teaching at Auburn University and is the co-director of the Mathematics Teacher Education Partnership. Martin has served on numerous national committees and has an extensive record of publications and presentations, but he most values his work with teachers of mathematics. The focus of this leadership seminar will be on providing leaders in mathematics education with ways of communicating more effectively the intent and practices of mathematics education in North Carolina to teachers, administrators, parents, other educational leaders, business leaders, stakeholders, etc. The seminar will address the need to have strong messages of success to share with key stakeholders in a proactive manner. The registration fee for the symposium is $65 for NCCTM members, and you can register at ncctm.org.

NCCTM Western Region Math Fair
The NCCTM Western Region Math Fair will be held on Saturday, March 25, 2017, in the Plemono Student Union at Appalachian State University for students in Grades K-12. The math fair is coordinated by Sumo Mann at Buncombe High School and Stephanie Bukner in Buncombe County Schools. Fifty ASU pre-service teachers and other volunteers will assist them. We encourage K-12 teachers to enter students in the math fair. It is a wonderful experience that enables students to work on a math project as well as gain experience communicating mathematics. The students who place first, second, or third or receive Honorable Mention will be invited to participate in the NCCTM State Math Fair to be held on Friday, April 28, 2017, at the North Carolina School of Science and Mathematics in Durham. Visit http://ncctm.org/ncctmwestmath for more information on the NCCTM Western Region Math Fair and information on the location of the Participant or Parent/Teacher page. The registration fee is $10 per student, and payment must be postmarked by March 1, 2017.

2017 NCCTM Fall Leadership Seminar and Annual State Mathematics Conference
The Fall Leadership Seminar will be on November 1 at the Kountry Convention Center in Greensboro. The State Mathematics Conference will be held on November 1 and 2 at the Kountry Convention Center in Greensboro. The theme for the conference is “Developing a Positive Mathematical Identity,” and the keynote speakers will be Jennifer Bay Williams, Pam Smith, Jennifer Wilson, and others. Go to ncctm.org for more details as they become available.