

Noyce STEM Teaching Scholars Program
STEMtastic Teaching Showcase

April 13, 2024

8:00 am-1:00 pm

Elmhurst University, School of Education

Koplin Hall

Conference Schedule

8:00-8:30 am REGISTRATION and CON'T. BREAKFAST				
8:30-9:10 am TEACHING SHOWCASE SESSION(1)	ROOM KH 104 Dr. Jeanne White Professor Elmhurst University Title: Connecting the culturally relevant standards with STEM language supports Grades 1-5 The presentation will include connections between each Culturally Responsive Teaching and Leading (CRTL) Standard and language supports for math and science. Participants will learn how to	ROOM KH 131 Kathleen Meyer Addison School District 4 Title: Junior High STEM in a Quarter—A Challenge! Science Education Grade 4-8 This program celebrates the connections between STEAM and literacy. Each session has specific titles to connect to the theme of the year. In addition, we are encouraged to find mentor texts that reflect and relate to each location of study. This presentation will explore what this program has to	KH 133 Julie Ellefson Harper College Title: Plastics Everywhere and What We can Do about it. Grades 4-8 In this session, participants will learn about polymers and synthetic plastics including their primary feedstock and the pros and cons associated with our use of synthetic plastics. We will make a bioplastic and explore some of its properties. Additionally, we discuss how this lesson relates to the United Nations Sustainable Development Goals (UNSDGs). During the lesson, students will discuss how they and their families use plastics	KH 304 Dr. Colleen Munro-Leighton Associate Professor Elmhurst University Title: Use a Bubbly Reaction to Teach Stoichiometry and Moles Grades 9-12 Attendees will see how to use the relatively simple and safe reaction to guide students through understanding and use of terms like moles, balanced chemical reaction, limiting reagent and stoichiometry. The presentation will describe and demonstrate a laboratory activity with an acid-base reaction for students to complete. The reagents are low-hazard household chemicals and completion of the reaction is apparent without any fancy equipment. At that point, product

	connect the IL CRTL standards with language supports in math and science. Moderator: Isabella Wroten	offer and how to integrate STEAM education in a cross-curricular setting. Moderator: Lizeth Perez	in their lives and what they do with them when they no longer need or want the plastic. They will also learn about plastic waste, including microplastics. This will allow the students to connect the topic to their own lives. Moderator-Debra Meyer, PhD	masses can be collected to compare molar amounts and visualize how stoichiometry works. Moderator: Julian Gonzalez
9:15-9:30 am VENDOR/ RESOURCE STATIONS				
9:30-10:10 am FEATURED SPEAKER PRESENTATION	<p>Featured Speaker Diana Iracheta, Latina Engineer</p> <p><i>Presentation Title:</i> <i>“Empowering Tomorrow’s Innovators: Cultivating Success for All in STEM”</i></p>			
10:15-10:30 am VENDOR/ RESOURCE STATIONS				
10:30-11:10 am TEACHING SHOWCASE SESSION (2)	Susan Camasta, PhD Linda Korbus STEM SQUAD DuPage Regional Office of Education	Mr. Aurelius Raines II Museum of Science & Industry, Chicago	Dr. Kwadwo Oppong- Wadie Elmhurst University	Dr. Karen Dailey, Harper College

	<p>To Build a Shelter Grades Pk-4</p> <p>Attendees in this session will be engaged in a student activity that can be easily implemented in their classrooms and adjusted for grade level. The students are challenged to think about the characteristics of shelters, their own and others, and then instructed to build a model of a forest shelter. Materials are provided. Participants will share and discuss, rebuild, and then test their shelter against defined elements.</p> <p>Moderator: Crystal Velazquez</p>	<p>Title: Oh No! I have to Teach Aerospace Engineering in 5 minutes! (I Got This) Grades 3-12</p> <p>In this session, teachers will learn how to create a comprehensive lesson in aerodynamics in Aerospace engineering. It is designed to be deployed in classrooms that do not have many resources. But rather than lowering the standard for the lesson it will empower students to have the fundamental skills that they will need in order to investigate a career in Aerospace engineering. Instructors will receive resources that will help them to teach this lesson at their institutions and modify and scale it for their classrooms.</p> <p>Moderator- Dr. Joseph Elliot</p>	<p>Title: Interacting with Adinkra: A Model for Culturally Relevant Geometry Instruction Grades 5-9</p> <p>This presentation centers culturally relevant pedagogy by engaging Adinkra symbols in the teaching of geometric concepts. The focus is specifically on observation of the Adinkra symbols to identify inherent geometry concepts and more specifically, transformations and symmetry. The presentation itself is a culturally relevant pedagogy. Adinkra symbols in this context serves as a culturally situated instructional tool.</p> <p>Moderator- Lauren Kramp</p>	<p>Write It! Do it!: Linking Observations with Technical Writing in Your Science Teaching Grades 9-12</p> <p>Write It! Do it! is an activity that all science classrooms can utilize to show students that writing about science content is intentional, specific, and sometimes, persuasive, in nature. Learning to record a procedure such that experimental results can be reproduced is a first step in science communication. This activity will test how well the students can articulate a procedure, follow through with a reproduction of experimental results, and then evaluate the efficacy of their work.</p> <p>Moderator- Nausheen Ajmeri</p>
<p>11:15-11:30AM VENDOR/</p>	<p>LUNCH</p>			

RESOURCE STATIONS				
<p>11:30-12:10 pm TEACHING SHOWCASE SESSION (3)</p>	<p>Ms. Sharon Peterson and Kim White Incredible Bats, Inc</p> <p>Incredible Bats Education Grades PK-5</p> <p>Moderator- Yessenia Sotelo-Luna</p>	<p>Dr. Allen Rogers Professor Elmhurst University</p> <p>Title: Historical Numeration Systems: Culturally Relevant Mathematics Topics Grades 5-8</p> <p>Participants will examine three long-lived historical numeric notation systems, each of which was in use for a period of 2000 years or more. This presentation includes exercises in representing numbers using Egyptian hieroglyphic, classical Roman, and Maya bar-and-dot systems. Development of numeration systems was driven by a variety of societal and cultural needs, including trade and the calendar. The modified base-20 positional system of the Maya provides an entry to discussion of the base-20 Iñupiaq numerals, devised in 1995 in Kaktovik, Alaska, by a group of</p>	<p>Mr. Victor Gomez, Ms. Diana Bonilla, Ms. Karina Hernandez Leyden High School District 212</p> <p>Title: Culturally Sustaining Practices in a Bilingual Science Classroom Grades 9-12</p> <p>This presentation focuses on how a team of Bilingual Educators used the NGSS Science and Engineering Practices (SEPs) as well as students' culture, language, and funds of knowledge to develop a curriculum that is relevant and equitable to a growing bilingual student population. The teachers will engage participants through examples of translanguaging to promote positive cross-linguistic transfer, culturally relevant curriculum design, and strategies on how to build meaningful relationships and an inclusive classroom environment.</p> <p>Moderator- Claudia Garcia</p>	<p>Mr. Glenn Lid Elmhurst University</p> <p>Title: ExoCharmic Chemistry Grades 6-12</p> <p>By using chemistry as a medium activities will be presented that will be successful in any science classroom. With the use of humor, modeling, demonstration, music, hands on activities, cooperative learning strategies, articles, and movies I will provide ideas that will bring the energy out of you and out of your students! It is my goal to provide ideas that will bring excellence and equity to all your students. This presentation will also provide you with templates you can use or adapt to your classroom. I taught in a culturally diverse environment for 44 years and have found these activities to connect with all students.</p> <p>Moderator- Michelle Quaver</p>

		<p>middle school Iñupiat students. Moderator- Jordyn Martinez</p>		
<p>12:20-1:00 pm FOCUS SPEAKER PRESENTATION</p>	<p>Featured Speakers Steve and Sheila Conner Call to Action- Preparing for a Future Beyond Imagination: DREAM T.E.A.M.S Engaged!</p>			
<p>1:00-1:15 pm Vendors/ Resource Stations</p>				