

MSP YEAR THREE

Newsletter

volume I. Fall 2016

September Workshop

The MSP group welcomed 30 new teachers in September. Over the past two years, teachers involved in the grant have strived to create excellent lesson plans based on the 5E instructional model. New teachers learned about aspects of 5E by participating in demonstrations of *At the Top: A Bald Eagle's Diet* and *Rocks Makin' Rocks*, lesson plans developed by Dr. Pamela Blanchard, and modeled by 1st and 2nd year MSP cohort teachers Crystal Taylor, Jennifer Boessel, Laura French and Vaneesha Persad. During the workshop, teachers from years 1, 2, and 3 collaborated in developing new 5E lessons on topics that are often challenging to students. Teachers also reviewed science inquiry games, and participated in sessions on content training and technology integration. In the end of workshop evaluations, an overwhelming majority of the participants responded that the training has helped improved their confidence and how they will teach some of the challenging science topics.

Argument Driven Inquiry (ADI)

MSP teachers recently learned about the Argument Driven Inquiry (ADI) process and were able to participate in 2 ADI activities. Argument-Driven Inquiry is a new approach to laboratory instruction based on current research about how people learn science - it allows students to learn science by doing science! The argumentation, experimentation, collaboration, and writing that takes place as part of this process are all in alignment with science and engineering practices. After the training, no less than 5 MSP teachers immediately implemented the ADI process in their classrooms and have started creating their own ADI scenarios and prompts!

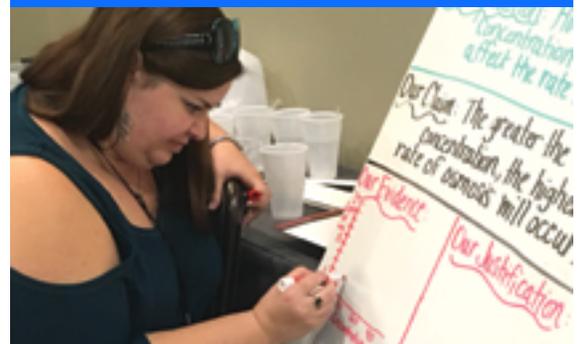
Technology Spotlight - AnswerGarden

Looking for a way to get more feedback from your students? AnswerGarden is an easy to use online resource designed to gather minimalistic feedback in real time. It is great for classroom activities, such as gauging the knowledge level of a class on a certain topic, or even online brainstorming! In addition to the browser-based version of AnswerGarden, there is also an app for the iPad. AnswerGarden is best used with questions that require short (1 word) responses. This is a free tool, and no login is required. There is also no limit to the number of Answer Gardens you can create. To create a new AnswerGarden, visit <https://answergarden.ch/create/>



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[MATH + SCIENCE]
PARTNERSHIP

Next workshop is January 25-27, 2017!



MSP Game Pilot – Chicken Collision

During fall semester, Ora Tanner worked with MSP teacher, Christina Gagliardi, to pilot a beta version of Chicken Collision with students at Osceola Middle School. Feedback from the pilot was positive, and according to Christina, “the students really loved playing the game and really were able to get the concept of balanced and unbalanced forces.” The class made some suggestions for improvement to the game, many of which will be incorporated by Ora Tanner and Lucy Moon-Michel, in their next version of Chicken Collision. This type of iterative design process has allowed for collaborative development of all of our MSP games. Teachers can check out all of the current games on the MSP website!

viva Las Vegas

During October, Dr. Yiping Lou, and graduate assistants Ora Tanner, Lucy Moon-Michel, and Jessica Hooper traveled to Las Vegas to present at the Association for Educational Communications & Technology’s (AECT) “Learning from Las Vegas” 2016 Convention. The title of the presentation was Game-Based Science Inquiry Learning and Assessment, and during the presentation, the team discussed the MSP project and development of several of the scenario-based science inquiry games. It was another great way to get the word out about MSP and our accomplishments in game-based learning.

5E Lesson Plans Galore

Did you know that the MSP website now hosts more than 30 lesson plans developed during the grant? That’s right, there are lots of great 5E lessons already developed by our teachers! If you are looking for ideas for new lesson plans, or want to see some 5E examples, the Lesson Plans section on the MSP website is a great place to start.

EARTH SCIENCE

Lessons include:

An Investigative Look at Florida’s Sinkholes; Carbon and Climate; Deforestation; Edible Plate Tectonic; Expanding the Universe; Layers and Laws; Let’s Get Moving; Phases of the Moon; Rocks Makin’ Rocks: Rock Cycle Simulation; Temperature of Inner Planets; and The Impact of the Sun and Moon on Tides.

LIFE SCIENCE

Lessons include:

At the Top: A Bald Eagle’s Diet; A Whole New World: The Search for Water; Frenemies, Bros, and Killers; Ins and Outs of Photosynthesis; Monster Mash-Up of Genetics; Snakes Invade in the Everglades; The Classification of Living Things; and The Ups and Downs of Populations.

BIOLOGY

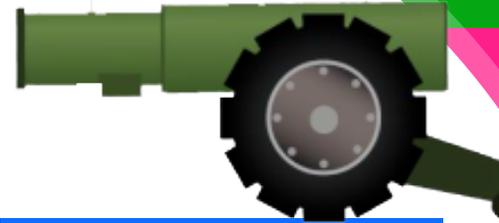
Lessons include:

Enzymes in Action; Genetics, Genetics, and More Genetics; Something Old, Something New...; The Real Story of Where Babies Come From; The Ups and Downs of Populations; and Yin and Yang of Photosynthesis.

PHYSICAL SCIENCE

Lessons include:

All the Small Things; Investigating How Heat Flows; Introducing Types of Energy; Levitation Engineers: Exploring Forces; Maintaining Mass; Musical Vibes with Palm Pipes; and States and Phases of Matter.



Did You Know...

Lesson sharing

We have received inquiries about our MSP 5E lessons from faculty at other universities!

During fall semester, a Professor from Wayne State University in Michigan shared positive feedback after reviewing the *States & Phases of Matter* 5E lesson. She plans to use the lesson with her class in one of the upcoming semesters. Don’t forget to share these great lesson plans with your peers!



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