

RODEL

## Going global, teaching local: Rodel Finalist Jillian Worssam links her students to scientists worldwide



DECEMBER 04, 2013 5:30 AM • [MICHELLE MCMANIMON SUN](#)  
STAFF REPORTER

*Third of a three-part series*

Jillian Worssam knows the ever-expanding arena of science cannot be contained within the four walls of a classroom.

"I'm very field-based," Worssam said. "I get excited about what I teach because I have the opportunity to go in the field."

Originally interested in forestry, Worssam discovered the value of teaching while working for the Peace Corps in the Philippines. Since then, she has been to the Bering Sea three times on research cruises. She uses the connections she has made in her global travels to find mentors for the kids in her eighth-grade science classes at Sinagua Middle School.

"We have mentors in Norway," Worssam said. "We have mentors in Russia. We have mentors in New Zealand and at least 15 different states, as well as northern Arizona."

### RODEL FINALIST

Worssam was one of three Flagstaff middle school teachers singled out by the Rodel Foundation of Arizona.

She was named a finalist for the Rodel Exemplary Teacher award and will receive a \$500 prize.

The Rodel Foundation named 11 other teachers as Rodel Exemplary Teachers for 2014, including two from Flagstaff.

The winners were Christopher Hull, who teaches seventh- and eighth-grade science at Mount Elden Middle School, and Veronica Villegas, who teaches sixth-grade social studies at Sinagua. They will each receive \$5,000 and be assigned student teachers to mentor for the next six semesters.

All the candidates were from schools with high numbers of students from low-income families and were nominated by school principals or superintendents. These teachers must demonstrate excellence in student learning, effective communication and a willingness to share what they have learned with other aspiring teachers. Rodel decided to focus on elementary and middle school teachers this year.

Following is the third of three profiles. Hull was profiled Sunday. Villegas was profiled Tuesday.

## GLOBAL CLASSROOM

In addition to using hands-on experiments with exploding gummy bears and dissecting fetal pigs, Worssam helps her students get a little taste of that thrill by connecting them with professional scientists doing cutting-edge research all over the globe.

“All my honors students are mentored by scientists in the field one-on-one for an entire year,” Worssam said. “Each student is communicating with a scientist the whole year — two emails a month, by phone, whatever — and then they have a series of projects the students have to do to learn the scientist’s science. I have students who understand the flow of carbon through the ocean. I have students who work with geologists and volcanologists.”

For non-honors classes, Worssam gets science, technology, math and engineering companies to mentor her students.

This year, Mountain Heart is teaching her classes how STEM subjects matter in the real world.

“Mountain Heart comes in every month and we talk STEM,” Worssam said. “We talk the business of Mountain Heart, the science, the math, the technology, the engineering, the careers. (We say), ‘This is what it takes to get this job, this is what it takes to get that job.’”

Worssam’s student-scientist partnerships have been so successful that she has been invited to present the program at a National Science Teachers Association Meeting in Boston next April.

Worssam also gets her students to collaborate with other schools in the name of scientific discovery. This semester, her students have been working diligently to engineer cardboard boxes capable of shipping a single Pringles chip to a partner school in Florida without breaking it.

### ‘SHIP THE CHIP’

Many of Worssam’s students sacrificed their lunch breaks so they could get extra time to work on their boxes for the “Ship the Chip” engineering challenge. Worssam did not mind the company. In fact, she has built such a good rapport with her students that some of them take lunch in her room every day just to hang out.

“I don’t care what anyone says, if you don’t have a good relationship with your students, and if you don’t make them want to learn, they’re not going to learn,” Worssam said.

Worssam redesigns her curriculum every year to keep her classes exciting, and she has no problem challenging students even when they are not in class. In fact, Worssam hired four of the boys who eat lunch in her classroom every day to make a zombie climate change movie for her. She is contractually obligated to pay them in Slim Jims, watermelon tea and pizza. She even amended the contract to get the boys to teach her how to make a movie on her iPod.

“I am the big dog (in the classroom) but I have just as much to learn from them as they have to learn from me,” Worssam said.

As the “big dog,” Worssam said she makes sure her students know what her expectations are. She is perfectly comfortable teasing her students and letting them tease her back, but she is careful to maintain a level of mutual respect.

“I love middle schoolers because they’re sassy,” Worssam said. “They have personality and they’re still teachable. They’re not as cynical as high schoolers are and they’re not as needy as elementary kids are, so we can have fun.”

Creating a place where students feel safe to joke around is not just good for morale. It also helps Worssam’s students build the confidence to take risks. In keeping with the spirit of scientific discovery, Worssam encourages her kids to make guesses and try out new ideas even if they end up being wrong.

“What is better, a bad guess or no guess?” Worssam asked one of her classes.

The students knew exactly how to respond.

“A bad guess,” they said.

Worssam has more than 18 years of teaching experience. On top of teaching, she keeps busy as a technology peer coach specialist, sponsor of Sinagua’s oceanography and STEM clubs, yearbook adviser, school webmaster and school Facebook manager. She is also the founder of Scientists in the Classroom, a board member for the Flagstaff Festival of Science and the regional director for NOAA’s Climate Stewards program.

*Michelle McManimon can be reached at 556-2261 or [MMcManimon@azdailysun.com](mailto:MMcManimon@azdailysun.com).*