Reaching Every Student... with Popcorn Genetics!

Story by Jennifer Ray

SUZANNE SQUIRES

What do a zookeeper, popcorn, and teaching have in common? Just ask Suzanne Squires, teacher at Los Olivos Elementary School in Santa Barbara. Squires was awarded a Literacy for Life grant last fall and was the 2015 California State Teacher of the Year.

"I'm my own species of teacher," Squires says. Teacher by accident, Squires earned her bachelor's degree in animal science and started her career as a zookeeper. After working with penguins, eagles and other birds, she became a quarantine biologist for the Santa Barbara Agricultural Commissioner's Office, identifying pests and diseases.

Although she enjoyed her work, concern for potential budget cuts led Squires to pursue a teaching credential. Her mother had always said she should be a teacher, and after student teaching, Squires had to admit mom was right. She has been teaching seventh and eighth grade for twenty years now. Squires teaches science, agriculture, health and multimedia. She approaches learning like no other.

> "There is a place for students with all different learning styles."

"There aren't too many science teachers who are also agriculture teachers," Squires says. "I don't really fit either mold. I bring in the other parts of agriculture that sometimes get forgotten. I've modeled a lot of things in the classroom after my work as an agricultural biologist."

Fusing science and agriculture, Squires develops teaching ideas to keep the classroom interesting. "I love curriculum," she says. "One of my favorite parts of being a teacher is coming up with new projects."

When the school gardener approached Squires with a variety of popcorn seeds, her "wheels started turning," leading to the Popcorn Genetics project. Sixth grade students planted the corn, and Squires' seventh graders harvested, separated the kernels by color and counted them. They even popped a few kernels to taste the four varieties. Finally, students planted the first generation of kernels, and they will repeat this process again with the second generation. Squires has found this model useful for engaging students.

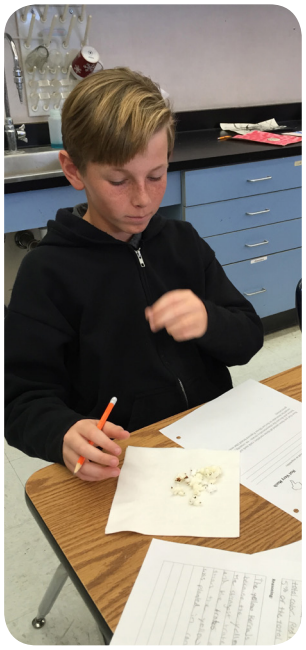
"The project gives a good representation of genetics. Most kids like popcorn, and they also like to talk about the products," Squires says.

By involving students from the point of a single kernel to a finished product, Squires strives to reach all students and let them know the agricultural industry offers a variety of opportunities. Students are involved with the popcorn project for three years: planting in sixth, studying in seventh and developing a product in eighth grade. The capstone assignment is to work in teams to create marketing plans.

< Continue reading from *Hands On Agriculture*!

Squire's seventh-grade students get their hands on the first generation of popcorn kernels and separate them by color.

Above, students carefully sort and count the colored kernels. Left, students monitor the popcorn growing in their school garden. Right, a student tastes the four varieties and makes notes of his observations.



"Everyone has a job," Squires say. "The students who are more interested in math take on the accounting role and the artistic students take on that role. There is a place for students with all different learning styles."

Squires vision is to reach all students. She prides herself in engaging the students who would not typically be interested in agricultural or scientific topics.

"Some students are more interested in the growing cycle, some are more interested in genetics and some are mostly interested in the business aspect and getting the products to the consumers," Squires says.

She hopes her students will make the connection and understand how science plays a role throughout California's large agricultural economy.

"Just that little bit of awareness is critical. It's something they can pull into their career later on in life and say, 'I know about that,'" Squires says.

"Just that little bit of awareness is critical."

Last year, CAITC awarded Squires with a Literacy for Life grant for her to continue to build upon the Popcorn Genetics project. Next, the Boy Scouts will build a new school greenhouse, just for growing popcorn. The possibilities for impacting students are endless.

The fun blend of science and agriculture, such as her Popcorn Genetics project, is just the thing that inspires the former zookeeper and agricultural biologist, to keep helping students discover the opportunities available within their own interests. You can be sure Squires will continue to find new, unique ways to bring agriculture to life in her classroom.

"You have to keep the curriculum fresh," she says. "It keeps the students engaged and it keeps you engaged. When you're excited about it, the students will be too."

Colored popcorn may be one of the freshest, most exciting ways to teach agriculture. That's what makes Suzanne Squires our 2015 California State Teacher of the Year. We can't wait to see what bright idea pops into her head next!