DAILY REPUBLIC

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Water Institute teachers return to classrooms with student-scientist vision

- Todd R. Hansen
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Teachers Tara Spinelli, left, and Heather Handa. (Courtesy photo)

FAIRFIELD — Tara Spinelli is starting her 29th year as a teacher in the Fairfield-Suisun Unified School District – 23 of those being a 15-minute walk from the Suisun Marsh.

But it wasn't until the summer of 2023 that Spinelli, an eighth-grade science teacher at Crystal Middle School, got to experience the marsh, Lake Berryessa and the Dunnell Nature Park and Education Center like a student-scientist with other educators.

"There's a value in that because you get to meet teachers from other districts and you learn about different opportunities ... and you get to learn about what is going on in elementary science and in high school science," Spinelli said.

She did that as part of the fourth Solano Water Institute for Teachers in 2023, alongside one of her former students who now teaches environmental science at Fairfield High, Heather Handa.

"I've been a grown adult for a long time," the 16-year teaching veterans said, "and then you see your old teacher and you feel like you are back in school, again."

She said going through the institute with one of her favorite teachers only made the experience that much more enjoyable.

"I really enjoyed it from the prospect of getting really cool teaching tools and...from a personal perspective," Handa said.

She has applied some of the lessons she learned in her classroom, and the students responded very well.

"They get to move around and (get to model) different aspects of water and the environment," Handa said.

Spinelli said her favorite part of the three-day institute was "actually doing the activities and working with colleagues and really thinking like a student-scientist."

"It wasn't just learning about the lessons, we actually did the lessons," she said.

Spinelli said she has applied many of those lessons to her own classroom curriculum, and she is only scratching the surface of possibilities.

Her classroom is home to the state's Project WET curriculum, a large book that has more than a hundred lessons, mostly hands-on activities that can be adapted to a host of science disciplines, but also English, math and even history classes.

The text is organized by grade levels, but is structured so there is a great deal of flexibility.

Tara Spinelli’s class at Crystal Middle School. (Courtesy photo)

"My students enjoy it because it's hands-on ... So they really get to think like a scientist, and you get to read and write like a scientist," Spinelli said.

That really shows when they get to walk through the Suisun Marsh, too.

"Sometimes the students end up having 'wonder questions,' so they have to read and do some research," Spinelli said.

The other part of the institute she really enjoyed is the range of speakers, from scientists, for sure, but also from more practical and pragmatic voices such as water treatment technicians.

"They even talk about job opportunities for our students," Spinelli said.

And that fits nicely into the summer camp Crystal Middle School holds for its students, which includes exposure to job opportunities.

Spinelli said she is always on the lookout for similar self-education opportunities.

In fact, a former colleague, who now teaches in San Diego, recently sent her something about a teachers camp in Yellowstone National Park, where the

reverberating echoes of Rocky Mountain elk cannot be mistaken for a plane or a train.