When talking to Miranda McLemore and Tina Misuraca, staff at science-based Camp Edmo — organized by a nonprofit called Edventure More — the phrase “making good humans” comes up often. Since 2004, the eight-week, statewide summer camp has helped students learn personal skills within scientific and creative endeavors.

The “good humans” in question are kindergartners through eighth graders who signed up for STEM-based classes in a variety of disciplines, from coding to botany, 3D printing to animal identification. Last year’s inaugural Camp Edmo in Rocklin had nearly 500 students. This year, almost 900 students gathered at Sierra College for eight weeks of learning, fun and personal development.
“Science is for everyone,” said McLemore, who directs Rocklin’s camp. “It’s for kids to become more curious about their world. We’re not thinking all the kids here will become medical doctors or foresters — that’s not the goal. The goal is to get them curious.”

Nearly everything at camp provides an educational experience, whether it’s taking notes in the field or engineering makeshift clipboards out of cardboard in order to take notes in the field. Students focus on skills associated with science, such as observation, communication, accuracy and critical thinking, alongside sharpening social skills.

McLemore said the camp helps introduce science to kids who may find it intimidating and lifeless in traditional classroom settings. For younger kids who don’t take home a heavily disciplined idea of science, camp at least provides an association between STEM and happy, positive feelings.

Misuraca, a biology major who studied at Chico State University, taught this year’s week-long ornithology course, where fifth- through eighth-graders participated in a “bio blitz” — observation within a specific natural area at a specific time, during which students tried to spot as many species as possible.

They learned to identify birds by key markers like color, size and shape, and hit the trail in small groups, dividing tasks like observation and note-taking. After debriefing back in the classroom, the students made a master list of species spotted. Then, the data they collected was sent to the Cornell Lab of Ornithology for use in studies of things like migration patterns, regional bird populations and invasive species.

Misuraca said the idea of contributing to research gives the students a sense of purpose, and they strive for accuracy and precision in their note-taking, which adds a sense of accountability to the course.

Some students come in with knowledge of local birds and some come in having never held a pair of binoculars, but all leave having contributed to scientific research through citizen science, going home with the idea that they don’t need to have PhDs and lab coats to participate in ecology, engineering, technology or related fields. They only need to take good notes.

“Several campers have come up to me and said, ‘Do you have a PhD? How do you know all this stuff?’” Misuraca said. “I tell them ‘No, I’m a novice just like you. I just enjoy it.’”

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