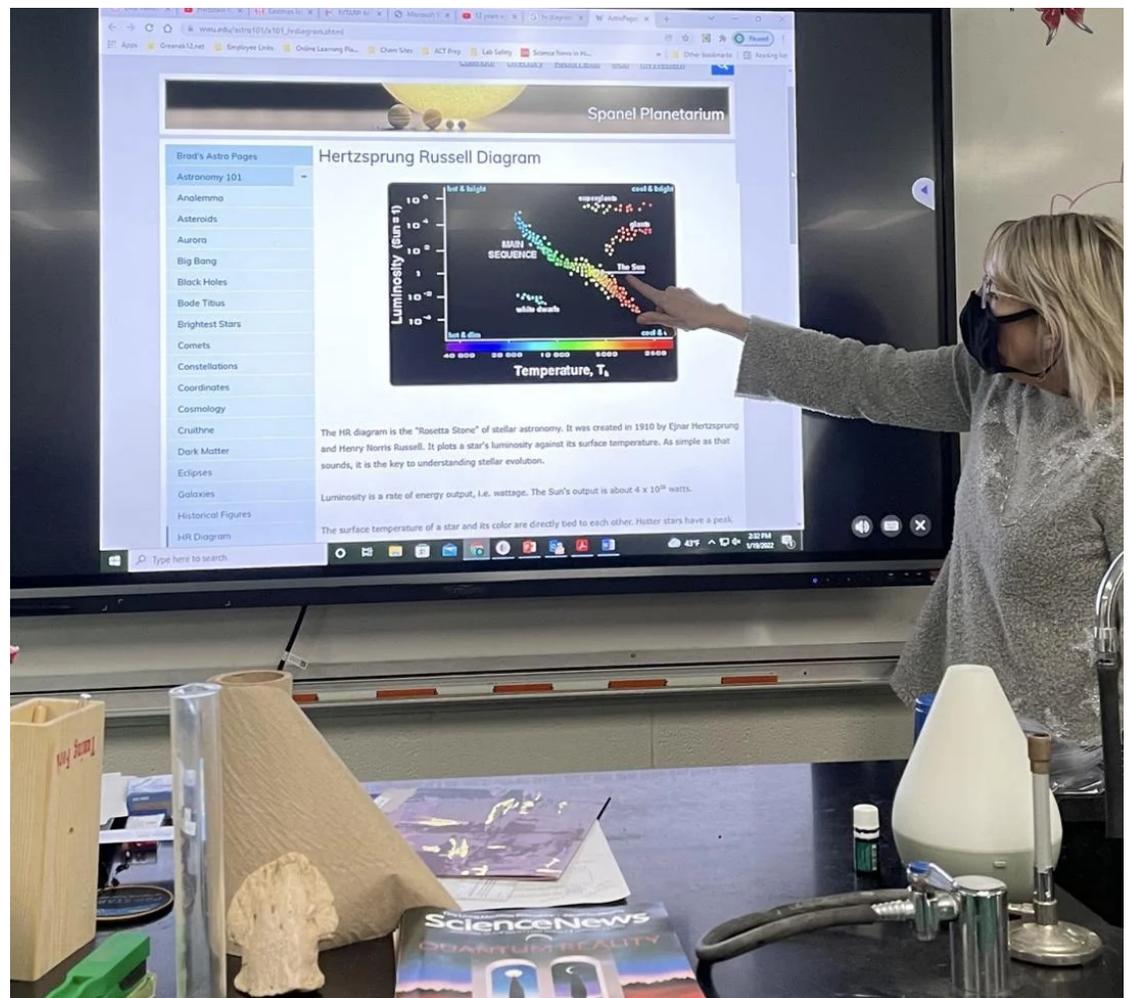


https://www.greenevillesun.com/news/local_news/north-greene-high-school-teacher-selected-to-work-on-nasa-research/article_7f4bf4ce-36e8-586d-8851-0a5377d5d5f0.html

FEATURED

North Greene High School Teacher Selected To Work On NASA Research

By Cicely Babb Staff Writer
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In her classroom at North Greene High School, Olivia Kuper uses a graph online to explain the relative heat than the Earth's sun and which she will be studying over the next year.

Sun Photo By Cicely Babb

There are millions of stars in the night sky, but not all of them emit the same amount of light.

M-class stars, which are cooler and smaller than the sun, will be the focus of an astronomy research project led by North Greene High School chemistry teacher Olivia Kuper.

According to a press release from the Infrared Processing and Analysis Center (IPAC), Kuper is one of nine teachers selected from across the country to work with mentor astrophysicists at IPAC in the 2022 class of NASA/IPAC Teacher Archive Research Program (NITARP) educators.

“Our project will be looking for M-class stars that emit an excess of infrared light,” Kuper explained. “I’m not sure exactly how we are going to be doing it yet. We just had our kick-off meeting on Sunday on Zoom, and we have some more meetings coming up, but I know we will have access to data from the Spitzer and Gaia telescopes.”

Kuper, who has participated in the program previously, teaches chemistry and physical science at North Greene, but she said she will involve a small number of interested students who will be able to work with her before or after school on the project.

Kuper and her group will work with Dr. Varoujan Gorijan, while another group of teachers will work with Dr. Luisa Rebull.

“They will not go easy on us just because we are high school teachers and students,” Kuper said of the scientists the groups will work with. “They will be there to share resources and tools and answer questions, but they don’t say, ‘here’s step one, do this.’ They expect us to do our work, and it’s not easy, but it’s good because the bar is high.”

She said groups are meeting virtually until July, when the program will pay for each participating teacher and two of their students to fly to Pasadena, California, to work in person at the IPAC for a week. The program also pays for the teachers and students to travel to Washington, D.C., to present their findings at the annual American Astronomical Society (AAS) meeting, typically held in January but called off for 2022 due to COVID-19.

“I would have thought the free trips would have been the highlight for students, but my student who worked with me in 2017 said multiple times that the biggest takeaway for her was getting to work side-by-side with me as a colleague,” Kuper said.

She said she first participated in NITARP in 2017 and has continued conducting research as a group alumni since. This year she is a mentor teacher, which means she is receiving funding and her term this time will be for two years, allowing her to involve two groups of students.

“This program changed how I teach,” Kuper said. “Of course I have done inquiry-based science in my classes, where there is a known answer and a known path to it, but with this, I am learning along with them. I realized I don’t have to always be the expert to teach students.”

Kuper started teaching at North Greene in 2020 after moving to the area from Texas. She called her work her “dream job” in part, she said, because of support from Principal Amanda Weems, a former science teacher, as well as because of her students.

“I just love it here. I appreciate the support from my principal, and the kids are terrific,” Kuper said. “They are eager to learn, they’re polite, and it is just a pleasure to teach kids like that. I am so excited to involve them in this stellar opportunity.”

