

Physics Instructor Jeremiah Goltz's Class Members Conduct Elaborate Super Conductivity Experiment

by Dan Brannan, Content Director
May 23 2022 10:21 AM



BUNKER HILL - Community District 8, Physics instructor Jeremiah Goltz is known for innovation in the classroom.

Recently in class, Goltz had a discussion with a student about the concept of Super Conductivity in which the students levitated items while creating a frictionless environment.

The discussion then led to seven students researching superconductors and they decided what materials to purchase, ran the experiments, recorded video, and wrote a release.

The exceptional students in Goltz's class were Drake Scroggins, Nathaniel Winchester, Kimberly Moore, Austyn Eddinger, Daniel Manar, Grant Burch, and Isaac Steward.

"I am proud of their work as this is not an experiment you will find run in many schools in our area," Goltz said.

In addition, the students wrote a paper detailing the project's scientific aspects using terms such as Eddy Current, Meisner Effect, state of matter, transition temperatures, critical temperature, magnetic field, and quantum blocking with source material at the end.

The students issued this statement: "Our group's consensus on this project is that this was a really fun experience, and we are glad we got the opportunity to participate in it. We were most amazed by the magnet rotating on both axes in the quantum lock state as well as the magnet levitation and its ability to rotate frictionlessly. It is exciting to think how these results could potentially enhance modern technology."

The students also issued thanks to those who helped them: "We would like to first thank those individuals who made this possible, including our instructor Mr. Goltz, our principal Mr. Smith, and Brad Jarden of Jarden Farms who provided us with the liquid nitrogen we needed to complete the project."

This is a video of the classroom experiment: