

Inspiring Colorado's Next Generation of Explorers

Students from across southeast Colorado recently participated in hands-on STEM education activities at the Deep Space Exploration Society (DSES) Plishner Radio Telescope and Science Center near Haswell, Colorado.

Through volunteer-led outreach programs, students explored astronomy, solar observing, radio science, RF engineering, and deep-space communications while interacting directly with scientific equipment and experienced mentors.

Hands-On Science and Discovery

Students had the opportunity to safely observe the Sun through specialized solar telescopes, learning how astronomers use different wavelengths of light to study our nearest star. Volunteers guided students through the observing process while explaining sunspots, solar activity, and the role of radio waves in scientific exploration.

The outreach activities emphasized participation and discovery, allowing students to personally engage with scientific instruments instead of simply watching demonstrations. These interactions help inspire curiosity, critical thinking, and enthusiasm for science and engineering.



Student observing the Sun through a solar telescope during a DSES outreach activity.



Students participate in hands-on solar observing with DSES volunteers.



Mentorship and one-on-one STEM engagement are central to DSES outreach programs.

Experiencing the Scale of Space Science

One of the most memorable moments for many students was standing beneath the massive Pishner Radio Telescope dish. The enormous scale of the antenna helps students visualize the engineering and scientific effort required to explore deep space and communicate across vast distances.

The Pishner Radio Telescope serves as both a scientific instrument and an educational platform, providing opportunities for students and visitors to experience real-world astronomy and radio science.



A student stands beneath the 60-foot Plishner Radio Telescope dish at the DSES Science Center.

Engineering and Technical Education

Students also explored radio frequency systems, instrumentation, and engineering concepts used in modern communications and radio astronomy. Volunteers demonstrated technical hardware and explained how radio systems can be used to study space, communicate over long distances, and support scientific research.



Students learn about RF engineering and scientific instrumentation during a DSES STEM activity.

Community Outreach and Educational Impact

DSES outreach programs are designed to bring science and engineering opportunities to rural and underserved communities across southeast Colorado. Through partnerships with educators, volunteers, and community organizations, DSES helps introduce students and families to astronomy, amateur radio, space science, and STEM career pathways.

By combining hands-on experiences with mentorship and scientific exploration, DSES continues to inspire the next generation of scientists, engineers, radio operators, and explorers.

About the Deep Space Exploration Society

The Deep Space Exploration Society (DSES) is a Colorado nonprofit organization dedicated to radio astronomy, amateur radio, scientific research, and STEM education outreach. DSES operates the Plishner Radio Telescope and Science Center near Haswell, Colorado, and supports educational programs, citizen science initiatives, and deep-space communication projects.

Website: <https://dses.science>