



iLEAD STUDENTS TO LAUNCH SCIENCE PROJECT TO INTERNATIONAL SPACE STATION

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CASTAIC, Calif. – A team of students from Santa Clarita Valley International (SCVi), an iLEAD school, will send a science experiment aboard the SpaceX-16 Falcon 9 rocket to the International Space Station (ISS) scheduled to launch on December 4, the school announced today.

The project is part of a partnership between iLEAD and DreamUp, the leading provider of space-based educational opportunities. The students' experiment, which will be on the ISS for approximately four weeks, tests whether black coffee kills a type of bacteria found in everyday plaque on teeth in microgravity in the same way it does on Earth. This launch opportunity is made possible via DreamUp's partnership with NanoRacks and its Space Act Agreement with NASA.

On Nov. 7, the iLEAD launch team carefully packed dried bacteria, hydration fluid, and dried instant black coffee into three tubes with airtight clamps called MixStix. Together with iLEAD science facilitator Ingrid Moon and mentor Dr. Renate Lux, a professor at the UCLA School of Dentistry, the team livestreamed the packing process with NanoRacks.

One of the MixStix tubes will blast off into space, while the other two will remain at SCVi. Four days before the experiment returns to Earth, the astronauts on board the ISS will mix the bacteria and hydration fluid at the same time the students do so on campus at SCVi. Two days before the return flight, both the astronauts and student scientists will mix the hydrated bacteria and the dried coffee. When the experiment returns from the space station, the students will compare how the coffee and bacteria reacted and grew in both environments.

In early December, the SCVi team will fly to Cape Canaveral, Fla., to present and answer questions about their experiment at NASA Kennedy Space Center. They will then watch the rocket launch, currently scheduled to take place on Dec. 4 from a launch viewing area at NASA's Kennedy Space Center.

The team consists of fifth grader Kallie Verkouteren; seventh grader Finton Harwood; eighth graders Sophie Muncie and Olivia Rothenberg; ninth graders Luke Rigdon, Chaya Rubinstein, Isobel Salters and Skyler Verkouteren; and eleventh graders Brayden Hall, Connor Raskin and Adam Simpson.

The project is just one of iLEAD's many initiatives designed to engage students in deeper learning experiences and further their understanding of STEAM (science, technology, engineering, art & design, and mathematics) and to build students' connections with Southern California's aerospace and aeronautical communities, according to Kathleen Fredette, director of STEAM Initiatives for iLEAD Schools. It underscores iLEAD's commitment to project-based learning, a teaching method that focuses



on allowing students to investigate, actively explore, and respond to authentic and complex questions or challenges.

“This project represents an incredible, hands-on opportunity for our iLEAD learners and facilitators to be involved in a real space program,” Fredette said. “They are not just pretending to develop microgravity experiments – they are actually doing it. And that requires our learners to imagine, collaborate, and then roll up their sleeves and produce something tangible that will actually launch to the International Space Station. The result is so much more than what they’d simply get from reading a textbook, and we’re so proud of the launch team’s hard work throughout this process.”

“We are thrilled to help iLEAD bring space into their classrooms, and their classrooms into space,” says Carie Lemack, co-founder and CEO of DreamUp. “Working together to inspire and engage the next generation of innovators and explorers in Southern California helps both DreamUp and iLEAD meet our goals of preparing and empowering learners and educators to reach for the stars and beyond.”

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About iLEAD Schools

iLEAD Schools, celebrating its 10th anniversary this year, is a network of 13 charter schools throughout California, the Midwest and Hawaii. iLEAD empowers learners to become conscientious, compassionate, and responsible citizens of the world, and inspires them to become creative thinkers and leaders with a lifelong love of learning.

The iLEAD learning model promotes individualized instruction, active learning methods and opportunities for self-directed learning. The organization celebrates and fosters each child’s individuality, and supports them in discovering their highest potential in the environment which best suits their learning needs.

About DreamUp

DreamUp provides space-based educational opportunities to learners and educators. The first company bringing space into the classroom and the classroom into space, DreamUp is uniquely positioned to engage learners globally with the most cutting-edge space research and developments, and inspire them through scientific discoveries in orbital and suborbital space. Entering into a Space Act Agreement with NASA in 2018, DreamUp has a proven track record, having brought over 400 student research payloads to the International Space Station and offering educational research opportunities on Blue Origin’s *New Shepard* space vehicle. From cutting-edge curriculum to rocket launch viewing, DreamUp endeavors to ensure that all student researchers can become the pioneers of space science, providing the most comprehensive educational experience possible and supporting learners’ scientific research and innovation efforts.