

PROGRAM OVERVIEW

JFK SPACE LAB REACHING FOR THE STARS

JFK SPACE LAB PRESENTED BY RAYTHEON

GRANTS OFFERED TO CONNECT STUDENTS WITH THE INTERNATIONAL SPACE STATION

The JFK Space Lab, presented by Raytheon and created in partnership with the John F. Kennedy Library Foundation, provides schools with a selection of science experiments that utilize direct connections with and data from the International Space Station (ISS) covering areas of Earth science, biology and computer science for middle and high school students.

Schools can conduct their teacher-led Space Lab in virtually any classroom or common area with an internet connection, with training and maintenance support from the ISS National Lab. Grants for the JFK Space Lab presented by Raytheon will be made to selected schools in August 2019. JFK Space Lab grant applications will be accepted through May 31, 2019, at www.jfklibrary.org/jfk-space-labs. For more information, email jfkspacelabsinfo@jfkfoundation.org.

The JFK Space Lab grant program is funded by generous support from Raytheon. Access to the Space Station Explorers educational program and the resources associated with ISS are provided by the ISS U.S. National Laboratory. Over a dozen partner organizations



developed and operate the featured educational programs, with equipment, tools, technology and curriculum, as part of the Space Station Explorers network. To learn more about ISS National Laboratory educational offerings, visit spacestationexplorers.org.

THIS PROGRAM HONORS THE INSPIRATIONAL HERITAGE OF PRESIDENT KENNEDY AND THE INNOVATIVE TECHNOLOGY THAT MADE AMERICA'S APOLLO PROGRAM POSSIBLE, AND REKINDLES THE POWER OF SPACE EXPLORATION TO INSPIRE AND ENGAGE STUDENTS.

JOHN F. KENNEDY
LIBRARY FOUNDATION



Raytheon

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BIOLOGY

EXOLAB — SEED GERMINATION ON ISS

Brought to you by Magnitude.io

EXOLAB ON ISS

Students compare seed germination in a classroom and ISS, using the same seeds and equipment. This experiment includes camera and other sensors.



GRADES: 3–12

SUBJECTS: Biology

PACKAGE: Kit, lessons,
management system

TIME: 10 hours

LINK: [magnitude.io – exolab](https://magnitude.io/exolab)

GENES IN SPACE — YOUR DNA EXPERIMENT ON THE ISS

Brought to you by Magnitude.io

DNA DISCOVERY SYSTEM

Students experiment with the same DNA analysis equipment as that used on the ISS. Completing this experiment is helpful, but not required, to enter the Genes in Space competition.



GRADES: 7–12

SUBJECTS: Biology

PACKAGE: miniPCR toolkit

TIME: 3 hours

LINK: [miniPCR dna system](https://magnitude.io/miniPCR-dna-system)



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EARTH SCIENCE

SPACE STATION ACADEMY — STUDENTS LIKE ASTRONAUTS IN TRAINING

Brought to you by VHS Collaborative

MISSION TO THE ISS

Students join Space Station Academy in this online course, complete with a simulated mission to ISS. Students learn Earth photography and other experiments taught by a local or online teacher.



GRADES: 3–12

SUBJECTS: Earth and space science

PACKAGE: Online course

TIME: 4 weeks

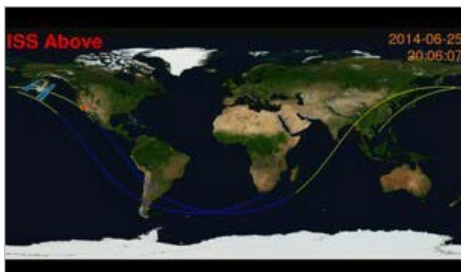
LINK: [mission to the iss](#)

GISS ABOVE — MONITOR ISS LOCATION AND LIVE VIDEO OF EARTH

Brought to you by Image BEAM

ISS ABOVE PLUG-IN FOR TV

Plug this device into an HDMI port on a large-screen monitor and monitor ISS orbital path, alerts for ISS fly-overs and live views of Earth.



GRADES: 3–12

SUBJECTS: Earth and space science

PACKAGE: ISS above

TIME: A few minutes to many hours

LINK: [jssabove.com](#)



JFK SPACE LAB PRESENTED BY RAYTHEON
TECHNOLOGY

ARISS — AMATEUR RADIO ON THE ISS

Brought to you by AMSAT

RADIO EXPERIMENTS KIT

Students use antennas and computer software to experiment with radio communications, including direct contact with ISS.



GRADES: 3–12

SUBJECTS: Tech, space science

PACKAGE: Antenna, hand-held radio, computer software, learning guide

TIME: 20 hours

LINK: ariss.org

QUEST FOR SPACE — OPERATE EXPERIMENTS ON ISS

Brought to you by Quest Institute for Quality Education

LEVEL 1: SPACE KIT

Build an electronics kit to explore heat flows and then write code to operate the same experiment on ISS.



GRADES: 4–12

SUBJECTS: Physics, programming

PACKAGE: Kit, activity guide

TIME: 10 hours

LINK: questforspace.com/products

