



Virtual Atmospheric Research Program

Ever wonder what it is like at the edge of space? How cold does it get? How much air pressure is at 100,000 feet? Get ready for the ultimate virtual education experience! The upper layers of our atmosphere are generally unexplored. Space Center University for Atmospheric Research offers a challenging science, technology, engineering, and mathematics (STEM) education program inspired by space exploration and citizen science.

About the Atmospheric Research Program

In the Space Center U Virtual Atmospheric Research program, participants join a high-altitude ballooning mission where they take part in the design process to fly experiments, sensors, and cameras to near space!

The troposphere and stratosphere are the lowest two levels of the Earth's atmosphere. Almost all weather takes place in the troposphere and about 95 percent of the atmosphere's mass is contained in these two layers. The next three layers of atmosphere are known as the mesosphere, the thermosphere, and the exosphere. Once the high-altitude balloon reaches the stratosphere, the weather balloon launched in this program bursts, sending the payload hurtling back down to Earth until the parachute can fully deploy for a soft landing.

What does the virtual program package include?

- One near-space balloon launch package can fly up to 65 Atmospheric Experiment Research Operations (AERO) Space tubes. Near space is considered 65,000ft to 325,000ft. On average our balloons reach 95,000-100,000ft in the stratosphere.
- Virtual lessons with your class or group. Minimum of three 90-minute virtual lessons for participants to learn about experiment design, meteorology and flight predictions prior to launch and experiment analysis post-launch.
- Supplemental content and activities provided with the lessons.
- Design your own mission patch to fly with your experiment!
- Fly your school logo or mascot in front of the payload camera with the Earth in the background!
- Shipping of the materials and experiments to and from Space Center Houston.

Add-on to your package!

- Additional Distance Learning lessons on STEM topics
- Customized content for your classroom
- Additional balloons for more student experiments!
- Astronaut guest speaker
- Virtual Graduation with flight certificate

Ages

Participants can be students, teachers, or anyone else that is ready for an elevated learning experience! The virtual Atmospheric Research program is recommended for ages 11 through adult.

Program Pacing

High Altitude Ballooning is an exhilarating way to get to the edge of space within the span of a few hours! It is ideal to have programming take place over the course of weeks, but it can be designed to take place within shorter timeframes.

Recommended Programming

Week 1	Introduction to Space Exploration & Experiment Design	90 minutes
Week 2	High Altitude Ballooning: Flight predictions, basic meteorology, Q&A about experiments <ul style="list-style-type: none">Experiments Shipped to Space Center Houston	90 minutes
Launch Week	<ul style="list-style-type: none">Launch, chase, recoveryExperiments shipped back to school or organization	Video recording. Live streaming is subject to availability in the field.
Week 3	Experiment & Flight Analysis	90 minutes
Weeks Continued	If you purchase additional virtual lessons, the program is modified to meet your needs	

Programs can be designed for the needs of the school or organization along with overnight shipping. Weather and predicted landing sites can impact launches and successful recoveries. The Space Center Houston team will always clearly communicate solutions and mitigate risk for getting your experiments back to you and the participants.

Pricing

Item	Cost
Basic Package:	
<ul style="list-style-type: none">1-High Altitude Balloon with up to 65 AERO Space experiment tubes.Three, 90-minute virtual lessonsLaunch, chase, and recovery of the high-altitude balloon outside of HoustonIncludes shipping of materials to the POC at the school or group location before the lessons begin.Shipping of experiments to Space Center Houston before the launchShipment of experiments back to school or group location after the flight	\$7,999.00
Additional balloon with up to 65 AERO space experiment tubes.	\$3,999.00
Additional 90-minute virtual lessons	\$185.00 (per lesson)
Astronaut	\$500.00
Customized virtual lesson content	\$185.00 (per lesson)