What is Starlab?

Starlab is a portable planetarium where students and teachers explore the wonders of the night sky. Up to 28 students enter the inflatable 20ft dome where our astronomy educator tours everyone through the stars and constellations in the evening sky.

Starlab Meets Standards

Starlab programs are designed to supplement the New York State Space Science learning standards. Programs are presented live and customized for each grade level.

Experience-based Learning

Starlab helps students grasp difficult astronomy concepts by offering them a new perspective of the stars and stellar motions. Our interactive planetarium programs teach students about the orbital motions that cause predictable patterns in the phases of the moon, reasons for the seasons, and the changing positions of constellations in our night sky.

Starlab Brings Astronomy Alive

How to Schedule Starlab

Starlab is available throughout the school year and summer for $600 per day for up to five 45-minute sessions. All that’s required is a clear 21x21ft indoor floor space, 11ft ceilings, access to electricity, and enthusiastic star gazers!

School, libraries, camps and other organizations can schedule through the Dudley Observatory by emailing us at info@DudleyObservatory.org

Public Schools may be eligible for BOCES aid. Contact Laura Lehtonen at laura.lehtonen@neric.org for more information.

For more information, check out our website: DudleyObservatory.org/Starlab
As the Earth Spins
Grades K-2
Why do we have night and day? Where does the sun rise and set? What will we see in the sky tonight? Students will look for patterns and make predictions based on the rotation of the Earth. 1-ESS1-1

Native American Constellations
Grades 3-5
The role of star stories in different cultures is explored through story-telling. Students are introduced to the important role of the North Star and celestial movement.

Reasons for the Seasons
Grades 3-8
Students observe and record changes in the sun’s apparent path through the sky through the year and understand why the tilt of the Earth’s axis causes the seasons. 5-ESS1-2, MS-ESS1-1

Earth and Sky
Grades 3-8
The concepts of latitude and longitude are reinforced as students plot coordinates and observe the changing view of the sky from different places on Earth. Students also use observations of the Big Dipper and the North Star to tell the both the time and season. 5-ESS1-1, 5-ESS1-2

Seasonal Stargazers
Grades K-8
What are constellations, and why do they change with the seasons? Students discover why the sun and other stars appear to move through the sky in predictable patterns, both daily and seasonally. 1-ESS1-1, 5-ESS1-2

It’s Only a Phase
Grades 3-8
Students will observe and model the cyclic pattern of moon phases, and use moon maps to identify and discuss different types of features on the moon. 5-ESS1-1, MS-ESS1-1

Andromeda to Zeus
Grades 3-8
Greek mythology and seasonal constellations are show-cased, while students predict the regular motion of celestial objects. 5-ESS1-2

Custom Programs
Grades K-12
Starlab instructors will work with teachers to design unique programs to meet curriculum needs. The Dudley Observatory is also available as a resource for classroom visits, telescope observing sessions, and teacher support and professional development programs.

NYS P-12 learning standards supplemented by our programs are listed after each program description.