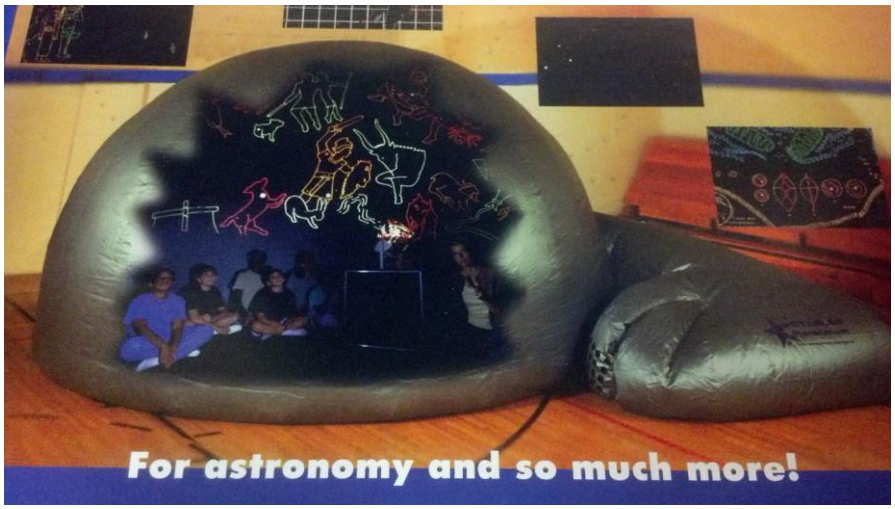

STARLAB®

Our Classic Starlab® System is a teaching aid geared toward astronomy. In brief, it is composed of a dome made out of opaque vinyl, and a projector, which displays images on the inside of the dome.
The images are produced using Starlab® cylinders, which are made out of film. The film used is entirely opaque, except for the portions where the images are. In this way, all the light from the projector is blocked except what is needed to create images. A major advantage of the film is that it affords nearly infinite contrast ratios. Cylinders Available are listed below.

The lab can also be used with a computer and projector. This does not allow for full dome projection but enables educators to use the internet to teach any subject imaginable. Our students have enjoyed classes on Deep Sea Creatures, The Northern Lights, Nature Animals and Sounds, Geometry, Historical Wars, Glow-in-the-Dark Books, Phosphorescence and Flourescence, etc.

The inflatable dome can create a unique classroom to use to teach any curriculum you can imagine!

EDUCATIONAL CYLINDERS AVAILABLE

Urban Starfield Northern Cylinder

This scaled-down version of the traditional Starfield Cylinder accurately simulates the night sky in areas where light pollution screens out a significant number of stars. The Urban Starfield cylinder features 600 stars, with the 14 brightest stars individually lensed. Perfect for beginning students of astronomy and/or people who live in urban areas.

Greek Mythology Cylinder
A colorful combination of traditional artwork and folklore for 45 classical Greek constellations is featured on a background of 3000 stars, making this cylinder an excellent introductory tool for locating constellations. A convenient identification key includes folk legends about each constellation. For astronomy, mythology, art, literature, social studies and ancient history for all grade levels.

Constellation Northern Cylinder
Using the well-known constellation identification system of H. A. Rey, this cylinder features the 48 major constellations, the ecliptic and celestial equator, colorfully displayed for the ultimate in visual retention. Applications: Star identification, planetary positions and the path of the sun and moon. Useful at all grade levels to facilitate rapid orientation for outdoor observations.

Native American Mythology Cylinder
This cylinder includes colorful outlines of figures from Native American folklore such as Long Sash, the Great Bear, First Man and Woman, Spider God and many others. An identification key contains legends drawn from the Navajo, Shoshoni, Blackfoot, Cherokee, Tewa, Hopi and Algonquin tribes. Excellent for use with K-6 students studying astronomy, social studies or language arts.

Biological Cell Cylinder
This one million-time magnification of a composite cell demonstrates the workings of a one-celled organism. The processes of cellular digestion and reproduction are illustrated in vivid color. Endoplasmic reticulum, ribosomes, mitochondria, the Golgi complex, secretion vesicle, lysosomes, pinocytotic vesicles, microvilli, cilia, chromosomes and nucleolus are clearly displayed. An identification key is conveniently located on the cylinder. An ideal introduction to cellular biology.

Plate Tectonics Northern Cylinder
This global projection is based on the work of Dr. Paul D. Lowman on the Continental Drift Theory at the Goddard Space Flight Center. This map shows active ridges, faults, spreading centers and volcanic activity over the past 1 million years. Identification keys are clearly visible, making earth science instruction at junior high through college levels easy to illustrate. For earth science and geology.

Earth Cylinder
This cylinder is a projection of the entire terrestrial globe including all of the earth's land and ocean masses. Longitude is displayed at intervals of 15º, latitude is displayed every 10º, with a scale of projection of 1 inch = 40 miles. It is superior to flat maps in its total elimination of distortion, and is useful for studying weather patterns, ocean currents, time zones, social studies and current events. For the study of geography, earth science, geology and navigation.

CAPACITY

Capacity will vary with the size and maturity of students. The Standard dome has a recommended capacity of 27 people.

SPACE REQUIREMENTS

STARLAB® should always be set up in an open space such as a cafeteria, gym, multipurpose room or large classroom. The height of the Standard dome is 10.5 feet while the Giant dome is 13.5 feet. You should allow at least 6 inches above the dome for a ceiling with fluorescent lighting and 12 inches above the dome for a ceiling with incandescent lighting. The Standard dome requires a room with a minimum of 21 x 21 feet. There should always be a clear path out of the STARLAB® and it should not block any exits. Although the fabric is flame resistant, STARLAB® should never be set up near an open flame, incandescent lighting, radiators, space heaters or other heat sources.

SET UP & TAKE DOWN

About 15 minutes after you bring the boxes in you will be able to say “please come in” to the students. At the end of the day, if you can leave the planetarium in place on the floor, then only about 5 minutes is needed for the dome to deflate. If you are putting it away, then about 15 minutes to collapse the dome and stow everything back in the duffel bag and cases.

DOME ACCESS

You enter through the larger of the two tubes connected to the dome. The kids love to crawl in but anyone can get in by merely bending over and walking through the entrance tunnel.

USER TIPS

- The Dome is an air-supported structure, leaving the door open causes deflation.
- DO NOT ALLOW participants to touch the dome, it create pin holes of light.
- Remove shoes before entering.
- Instruct participants to crawl or to “stay low and go slow”.
- Use two adults working to assist when students are going in and out of the dome. One as the “door keeper” on the outside while the second stands inside the STARLAB flashlight directing participants where to sit.
- After every three people enter the dome, close the door to re-inflate.
- Once inside the dome, visitors should be instructed to sit on the floor on the edge of the fabric in a circle. They should not lean back on the dome fabric because it might cause the dome to be pulled down or rock excessively.
- Nobody should sit in the space directly in front of the fan opening nor should anyone enter the inflation tube.
- If there are more people than a single circle can accommodate, then visitors can make a second inner circle surrounding the projector.
- When it is time to exit the dome, the “door keeper” should leave first and hold the dome entrance open for the group to exit. Visitors should exit single file being careful not to trip over the fabric at the end of the entrance tunnel when they leave.

HANDICAP ACCESSIBLE

Because of its unique design, the STARLAB® can accommodate visitors who are restricted to wheelchairs, have walkers or are otherwise physically challenged. Instead of having these individuals use the entrance tunnel, they can enter and exit the planetarium by going in and out under the edge of the dome. To do this, you will need a second person to assist you. Individuals who are physically challenged should be brought into the dome before the rest of the visitors. Once the entire group has been seated, back the wheelchair into the opening of the entrance tunnel. In this way, they will be able to see everything without blocking the view of other visitors. (We only recommend this in this particular situation.) When the program is over, move the wheelchair out of the tunnel and place it next to the projector.

TRANSPORTATION & CARE

The STARLAB® is available in boxes/cases to be easily transported but does require strength to move, dry temperature appropriate vehicle space to transport, and safe indoor storage. The heaviest box is the one holding the projector: about 40 lbs which includes the Astronomy and More notebook. The dome weighs about 45 lbs. The fan and case weigh about 22 lbs. The boxes/cases are not designed to be in extreme temperatures or inclement weather.
Back of Truck beds are not recommended for STARLAB® transportation.
THE STAR LAB SHOULD NEVER BE OUTSIDE FOR LONG IN BOXES/CASES AND SHOULD NEVER BE SET UP OUTSIDE.

STARLAB® LOAN AGREEMENT

E-mail silverspruceacademy@gmail.com to request use of the STARLAB® at least 1 month prior to loan. Please include Contact Name, Organization, Dates, and Phone #. The lab is used at many locations and may not be available if you do not plan ahead. If the dates are available that you are requesting you will be emailed to fill out a loan agreement.

A certificate of liability insurance is required to cover $27,000.00 for any damages due to borrower's negligence. This can take up to 2 weeks to request from your ins. provider.

A qualified person from your organization will need to set up and take down the Star Lab. If you do not have anyone experienced with this, you will need to make arrangements with Silver SPRUCE Academy to be trained or to provide the service prior to the loan.

Your organization will need to pick up and return the Star Lab from Silver SPRUCE Academy @ the ELHI Center. These dates will be decided on after receiving the certificate of liability.

STARLAB® MAINTENANCE FORM

Silver SPRUCE Academy will do it's best to maintain the proper care of the star lab to keep the lab in optimal condition. We appreciate you taking the time to inform us of any issues that arise during your use of the lab during your loan time as we are relying on you to help us maintain the maximum functioning of the lab since it is loaned to numerous entities, locations, and users. If the lab is returned, we find an issue with it, and you have not turned in a maintenance form, we will assess the damage against your insurance coverage to fix the issue. We are not experts on the lab and can only help troubleshoot at a minimum. Thank you for your help in caring for the star lab!