StarLab is a portable teaching environment with a dome-shaped planetarium, easily inflated with the use of a fan. The dome is made from an opaque, reflective fabric designed for interactive hands-on, minds-on activities. The projector, using your choice of fourteen interchangeable, computer-generated mylar cylinders, projects vivid images on the inside of the dome. The StarLab is large enough for an entire class to view demonstrations of the night sky, stars, and planets together.

StarLab Program (continued)

StarLab Cylinder Topics:

- African Mythology
- Ancient Egypt
- Celestial Coordinates
- Constellations
- Deep Sky
- Earth
- Greek Mythology
- The Moon
- Native American Mythology
- Ocean Currents
- Plate Tectonics
- Solar System & Galaxy
- Starfield
- Weather

The StarLab system teaches astronomy, earth science, physical science, geology, geography, oceanography, weather patterns, navigation, mathematics, art, literature, and mythology with flare.

Questions? Contact Us! Orange-Ulster BOCES School Library Services

Booking questions:
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janet.vaitas@ouboces.org
845-781-4360

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Diana Wendell, Coordinator
845-781-4363 Ext. 10743
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View from Inside the StarLab Dome

StarLab is a multicultural, multi-discipline tool for education. It is supported by a curriculum of related programs and activities for students. Teacher guides and lesson plans are included for all grade levels from K-12 and for each of the fourteen cylinders. StarLab is available for rent on a weekly basis from BOCES Library Services.

8/8/17
Waterplay (Kindergarten)
Students will experience free play, curiosity and discovery of water, its properties and forms, by using a variety of utensils to mix, pour, stir, change and enjoy water. Skills emphasized in this unit are observing, classifying and communicating.

Properties (Grade 1)
Using the skills of observing, classifying and communicating, students will investigate the properties of objects, including: color, shape, texture, size, weight and whether they sink or float. Students will discover that materials can exist as solids, liquids and gases.

Buoyancy (Grade 3)
Students experiment with a variety of designs and investigate variables that affect the buoyancy of the boats they construct. Using plasticine, aluminum foil and salt, students learn the basics of floating.

Electrical Circuits (Grade 4 and Grade 3 with supervision)
Students construct and test simple circuits. Investigations include series and parallel circuits, conductors, resistance, and how to make a fuse.

Electromagnetism (Grade 5)
Students will use magnets and electromagnets to investigate the relationship between electricity and magnetism. Students will construct various devices using electromagnets including a buzzer, a small motor and a large motor.

Powders & Crystals (Grade 6)
Students investigate the physical and chemical properties of powders and crystals and observe the interactions of these materials with a variety of chemical indicators.

Classroom Plants (Kindergarten)
Students plant, grow and care for common plants. Using seeds, cuttings and roots, students learn the basics of plant growth.

From Seed to Plant (Grade 1)
Students classify seeds by properties, plant seeds, care for plants, and observe and record growth.

Animal Coverings (Grade 1)
Students will be introduced to the animal world through observation and classification of the many different forms of protection animals have developed. Students use hand lenses and play games to investigate feathers, furs, shells, hides.

Growing Older (Grade 2)
Students observe and compare the changes occurring in plants and mealworms as they mature and die. This unit follows the growth and life span of people, plants and insects.

Frogs/Their Habitats and Habits (Grades 2 and up)
The biology of frogs is studied using the tools of math and technology. Topics covered include: building a better frog tongue for catching bugs, estimating populations, frogs and their life cycles.

Butterflies (Grade 3)
Students observe the biological process of metamorphosis, learn to care for and feed butterflies, and practice humane treatment of animals.

Plant Life Cycles (Grade 4)
Students raise their own plants from seeds. They will observe and compare different plant life cycles and stages of growth and development using the basics of scientific observation and data collection and analysis.

Rocks and Minerals (Grade 6)
Students investigate properties of rocks and minerals including color, texture, cleavage, reaction with acid, and attraction to magnets.

The Next Generation Science Standards (NGSS) stress an inquiry and active learning approach. “Critical to understanding science concepts is the use of scientific inquiry to develop explanations of natural phenomena. It is recommended that students have the opportunity to develop their skills of analysis, inquiry and design through active investigations in grades K, 1, 2, 3, 4 and through active laboratory work in grades 5, 6, 7, 8 on a regular basis.” To support the NGSS, the Orange-Ulster BOCES maintains a system of preparation, maintenance, distribution and ordering of Elementary/Intermediate Instructional Kits and the StarLab. The Science Kits contain unit components that align with the New York State Standards.