

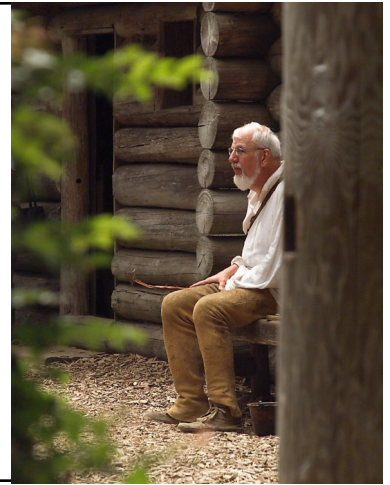
Other USA Aloft Programs for Teens and Adults

Visit www.usaaloft.com and scroll down to “School Programs” for details about any USA Aloft program. Call (603) 625-2019 or email inquiries@usaaloft.com for more information.

Lewis and Clark: Framed Exhibit, Illustrated Lectures, Surveying Techniques (Talk or Field Course), Foods of the Expedition

Nature Photography Workshops: Introductory Nature Photography, Printing Workshop, Depth of Field, Painting with Light (Night Photography)

Young Scientist Series: Application of Object Oriented Programming to a Scientific Problem: Introductory OOP applied to scientific data.



Light, the Universe and Everything

An Astronomy Exhibit from USA Aloft, LLC

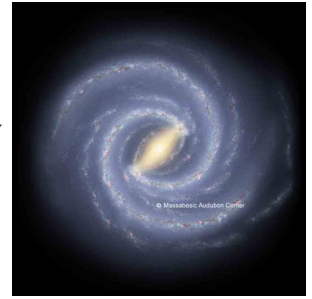
- Exploring Astronomy from the Perspective of Light
- A Teaching Exhibit, Free and Open to the Public
- Images, Text and Hands-On Activities
- Classes Welcome (Please call in advance.)
- Astronomy Evening Reception April 9, 2011, 6 – 9 pm

Through April 24, 2011 at the Massabesic Audubon Center in Auburn, NH.
Details overleaf. Center Contact: (603) 668-2045 or MAC@nhaudubon.org.

USA Aloft, LLC
490 Wilsons Crossing Road
Auburn, NH 03032

Dear Educator,

USA Aloft, LLC is pleased to announce **Light, the Universe and Everything**, an astronomy exhibit, at the Massabesic Audubon Center in Auburn, NH. This teaching exhibit is particularly targeted at science-minded teens, and should provide a broad array of topics for further classroom investigation and discussion. A mix of hands-on activities, images and explanatory text lead the visitor from elementary topics to leading edge research areas. I have included a brief outline of the exhibit below. More information about the exhibit contents, including press materials, may be found at www.usaaloft.com/LUE.



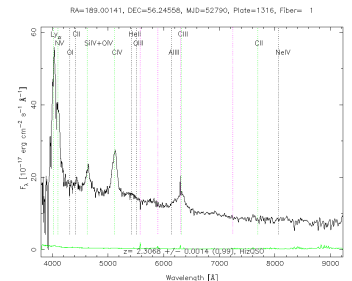
The exhibit is free and open to the public during the Center's normal business hours of Tuesday – Saturday, 9am – 5pm and Sunday, 11am – 1pm continuing through April 24. Please call ahead (603-668-2045) to ensure that the exhibit room is not in use and to inform the Center of groups larger than ten. USA Aloft will host an evening reception on April 9 from 6pm – 9pm. Light refreshments will be served. Additionally, on Sunday, April 10, the exhibit will be open from 11 to 4. I will be available at both events to explain or discuss the exhibit. I hope you and your students will be able to visit this exhibit.

David H. Saxe
USA Aloft, LLC

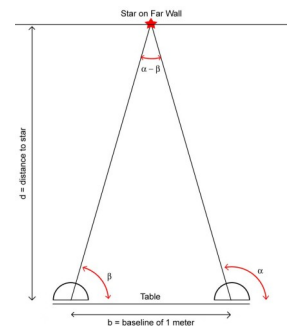
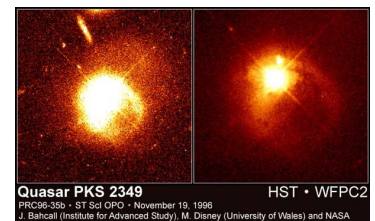


Light, the Universe and Everything - Exhibit Outline

Since our ancestors first looked upward to the skies and continuing today as astronomers peer into the deep realms of the Universe, light has brought messages of the world around us. Using light as a unifying theme, this exhibit mixes spectacular images from the night sky, explanatory texts, scientific papers and hands-on experiments. Throughout, an effort has been made to adapt the materials to multiple age groups and interests.



1. Introduction to the exhibit
2. The Spectrum – the electromagnetic spectrum, including visible light
3. Filters – colored filters demonstrate how color may be used to differentiate objects
4. Secret Messages – messages are revealed when the correct filter is used
5. What is Out There? – examples of stars, planets, galaxies and other objects
6. Finding Objects – constellations and star maps
7. What is a Constellation Really? – a 3D model demonstrates how star alignment
8. Magnitude – apparent and absolute brightness explained
9. How Far Away is it? – distance measures and the cosmic distance ladder
10. Red Shift – a larger yardstick and the expanding universe
11. How Big is Everything, Really? – relative sizes are compared to a 2 kilometer trail
12. Strange Stars – the discovery of quasars
13. Hubble Space Telescope Ultra Deep Field – a candidate galaxy for most distant object
14. Cataloging the Sky – Sloan Digital Sky Survey (SDSS) telescope and catalog
15. Let's Do Some Science! – web based activities, including learning to classify galaxies
16. Cosmic Background Radiation – results from Wilkinson Microwave Anisotropy Probe
17. What Will We Do Next? – astronomers plan the next decade
18. Resources – sources for the exhibit and further study



We expect to add to the exhibit over time. We will add an actual spectroscopy plate used by the SDSS telescope, perhaps by the time you receive this mailing. Suggested additional topics include the life cycles of stars, supernovae, gamma ray bursts, and exoplanets.

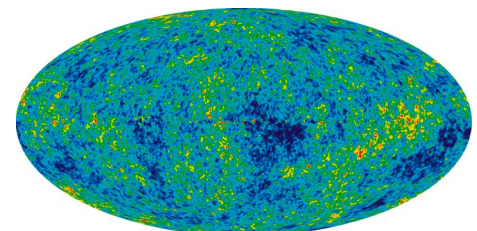


Image credits: Galaxy Simulation courtesy NASA/JPL-Caltech/R. Hurt (SSC/Caltech); Mystic Mountain Nebula and Quasars by Hubble Space Telescope; Spectrum by Sloan Digital Sky Survey, Cosmic Background Radiation by Wilkinson Microwave Anisotropy Probe; Park Ranger and Parallax measurement by David Saxe. For further credit information, please visit www.usaaloft.com/LUE.