



## **Schedule of Events**

**In honor of the ESSL's  
50<sup>th</sup> Anniversary,  
join us in celebrating  
this special facility.**



## **Natelli Observatory – Newly Opened**

Open 5 – 8:30 PM, weather permitting, on the dates of evening planetarium shows.

## **The Ausherman Planetarium**

### **Evening Planetarium Show Schedule**

Doors open 5 – 8:30 PM for shows at 5:30, 6:30, and 7:30 PM

\$5 per person at the door and online

90 tickets per show available

Any leftover tickets are available at the door starting at 5 PM.

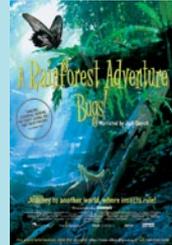
For more details about purchasing tickets, visit <http://essl.sites.fcps.org> or call 240-236-2694.

## Critter Month

Join us each week in October to explore organisms from the past and present both big and small. What do scientists know about these creatures?

### **Bugs! A Rainforest Adventure (October 16)**

Bugs are bizarre, beautiful, and an endless source of fascination. Bugs! will magnify the miniscule world of insects and explore the secrets of their success. From metamorphosis to mastery, predator to prey, and community to concealment, extraordinary large-format 3D images will bring audiences face-to-face with this amazing universe of creatures. Narrated by Dame Judy Dench.



### **Sea Monsters: A Prehistoric Adventure (October 25)**

Journey 80 million years back in time to an age when mighty dinosaurs dominated the land – and an equally astonishing assortment of ferocious creatures swarmed, hunted, and fought for survival beneath the vast, mysterious prehistoric seas. Stunning photo-realistic imagery re-creates the perilous underwater realm of two young, dolphin-sized marine reptiles called Dolichorhynchops, or Dollies. Follow their incredible journey through waters ruled by some of the most awesome predators ever to prowl the Earth's oceans. Narrated by Liev Schreiber.



### **Kaluoka'hina: The Enchanted Reef (October 30) Cartoon animated adventure**

The vastness of our planet's oceans guards unimaginable secrets. One of its most precious is Kaluoka'hina, the enchanted reef whose magic protects it from human discovery. Kaluoka'hina's colorful inhabitants live in peace until the volcano erupts, and the spell is broken. Now it's up to Jake, the young sawfish, and his paranoid pal, Shorty, to restore the magic of Kaluoka'hina. Their only lead: the ancient legend that tells of touching the Moon.



# Earth & Space Science Lab



## OPEN HOUSE

November 5, 2012

1 - 8 PM



**South Frederick Arboretum Hunts**

\* **Ausherman Planetarium Shows** (every hour on the ½ hour)

**Natelli Observatory - Telescope Viewing** (weather permitting)

\* **Scales and Tales** (2 & 3 pm at Lincoln Elementary)

\* **Astronaut Speaker** (4 & 6 pm at Lincoln Elementary) • **Moon Rocks**

**50th Anniversary Book Signing** • **Indoor Scavenger Hunts**

**Meet the Critters** • **Exhibits and Displays**

**Booster Club's Sales Table**

- 50th Anniversary Book: Celebrating Our Past, Envisioning Our Future
- 50th Anniversary T-Shirts
- Telescope Raffle



\* Ticket Required - limited seating, no charge

## Premier Showing! Secrets of the Sun (November 15, 20, 29)

An intimate look at the role the Sun plays in the life of our solar system. From the nuclear forces churning at the heart of the Sun to the mass eruptions of solar material into surrounding space, we experience the power of the Sun and its impact on the planets and ultimately life on Earth. We trace the Sun's life cycle, going back to its beginnings and moving forward in time to its eventual death.



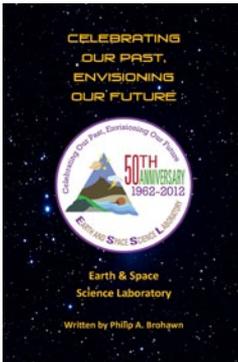
Since 1962, the ESSL has shown various versions of the Christmas Star. For 50 years, it has been the most popular and well-attended planetarium show offered to the public.

Using digital technology, the full-dome show "Mystery of the Christmas Star" is being offered in the Ausherman Planetarium. In recognition of the 50th anniversary, we are presenting the program on six dates in December!

Get your tickets early!

## Mystery of the Christmas Star (December 4, 6, 11, 13, 18, 20)

Journey back over 2,000 years to Bethlehem as we seek to discover a scientific explanation for the Star sighted by the wise men. We'll investigate possible dates for this occurrence and look at recorded sightings of significant astronomical events during this timeframe. We'll see which of these signs in the sky could have been remarkable enough to cause the Wise Men to travel across the desert from Babylon to Bethlehem.



## 50th Anniversary Book

*Celebrating Our Past, Envisioning Our Future* is a book that captures the essence of the Earth and Space Science Laboratory over the last fifty years. Read history and learn some of the ESSL reflections from directors, teachers, parents, and students. The books will make a great addition to your library or gift for your family and friends.

Purchase on our website, open house, or evening show.  
\$20 - includes tax

FRONT



BACK

## 50th Anniversary T-Shirt

The latest Earth and Space Science Laboratory's t-shirt will make for a fun addition to your wardrobe or a thoughtful gift for family and friends. Children and adult sizes available.

Purchase on our website, open house, or evening show.  
\$15 - includes tax

## Space Months

Join us in January and February to explore space. Learn about the history of human missions into space, the recent findings about Saturn, and the awesome wonder of our universe.

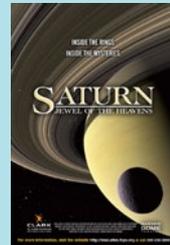
### Dawn of the Space Age (January 15, 24)

Re-live the excitement of the early days of space exploration, from the launch of the first artificial satellite Sputnik, to the magnificent lunar landings and privately operated space flights. Be immersed and overwhelmed with this most accurate historic reconstruction of man's first steps into space. Who were these men and women who took part in these death defying endeavors? Witness their drive, passion, and perseverance to explore in "Dawn of the Space Age."



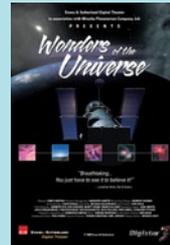
### Saturn: Jewel of the Heavens (January 29, February 7)

Enjoy a breathtaking journey through one of the most beautiful and majestic planetary systems in space. This original Clark Planetarium production is the first full-dome presentation to take actual images from NASA's Cassini-Huygens mission and create a fully immersive 360-degree tour of one of the most amazing planets in our solar system.



### Wonders of the Universe (February 12, 21)

Peer deep into space through the eyes of the orbiting Hubble Space Telescope and travel back billions of years in time to witness the birth of the universe. On this breathtaking excursion you'll witness the formation of galaxies and explore some of the most wondrous nebulae and astronomical structures yet discovered. As your travels continue, you'll fly deep into our own Milky Way galaxy and return home to Earth on a spectacular tour through the solar system.



## 50<sup>th</sup> Telescope Raffle

### ETX 90 - Donated by "Hands On Optics"

Look up, look out, and learn about our neighborhood of space! Raffle tickets will be sold from now through our last evening planetarium show, March 26, 2013. The drawing will take place following the 7:30 PM show. You do not have to be present to win.

You may purchase tickets when you visit the ESSL during evening planetarium shows.  
\$1 each or 6 for \$5.



\*Proceeds from the book, t-shirt, and telescope raffle sales will support exhibits and displays for students.

## Geology and Weather Months

Join us in February and March to explore weather. Learn about volcanoes, earthquakes, tornados, and the weather on other planets in our solar system.

### Forces of Nature (February 26, March 7)

Come close to nature's most powerful and extreme forces. Cameras capture massive volcanoes, earthquakes, and storms as a team of scientists travel the world in an attempt to figure out what causes these dangerous yet undeniably thrilling natural occurrences. Putting their lives on the line in the name of scientific discovery, the experts forge their way through erupting pits, volcanic flows, along fault lines, and in cars heading straight for tornados' eyes. Narrated by Kevin Bacon.



### Premier Showing! Wildest Weather in the Solar System (March 12, 21, 26)

Join National Geographic on a spectacular journey to witness the most beautiful, powerful, and mysterious weather phenomena in the solar system. From a storm the size of a 100-megaton hydrogen bomb, to a 400-year-old hurricane, to a dust tempest that could engulf entire planets, you'll be glad you live on Earth! Audiences will fly through the thick atmosphere of Venus, magnetic storms on the Sun, liquid methane showers on Titan, and anticyclones whirling at hundreds of miles per hour on Jupiter.

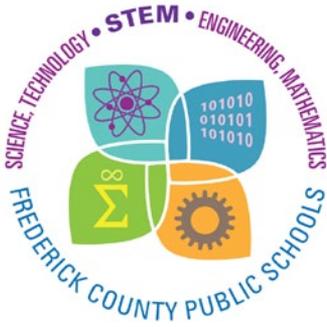


### Arboretum Tour (May 18 & 19)

*Beyond the Garden Gates*, an event sponsored by “Celebrate Frederick,” will include the South Frederick Arboretum on its famous garden tour of downtown Frederick.

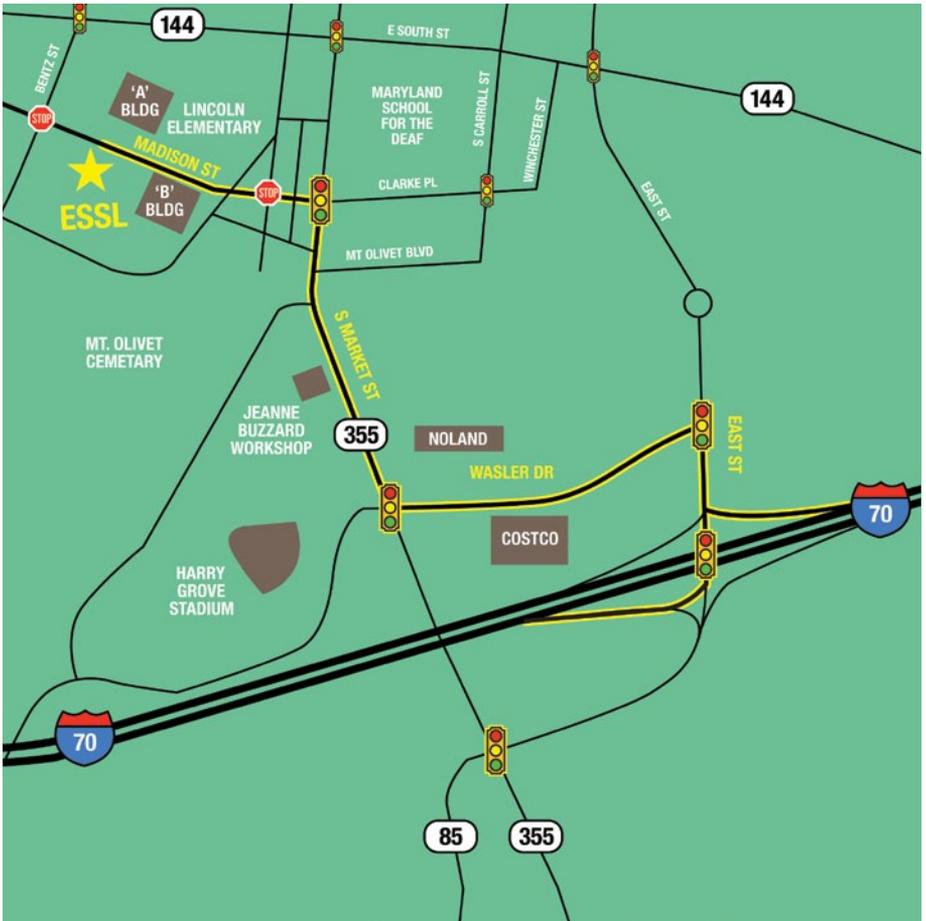
The South Frederick Arboretum is just behind the Earth and Space Science Lab. With over 65 species, the arboretum is home to 250 trees.

Master Gardeners of Frederick will be on site to hand out materials for a self-guided tour through this hidden two-acre forest in downtown Frederick.



## Summer Camps – 2013

The ESSL offers a variety of summer camps. These are STEM (Science, Technology, Engineering, Math) programs that are designed for specific age groups grades 1 – 12. We will publish registration details and costs on our website in the spring of 2013.



<http://essl.sites.fcps.org>  
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