

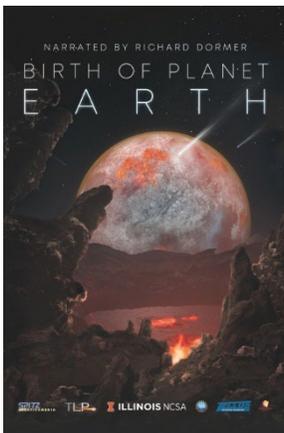
## 5000 Eyes: Mapping the Universe with DESI

The Dark Energy Spectroscopic Instrument (DESI) is creating the most detailed map of our nearby universe. Installed on the Mayall telescope on Kitt Peak in Southern Arizona, DESI's 5000 independently operated robots can measure the light from millions of galaxies at once. It is currently mapping our Universe at a rate of ~1 million galaxies per month.

Join us as we explore the science, instrument, and people behind this global endeavor and reveal the most detailed galaxy map of our Universe!

**Ages 8+**

**Virginia Standards of Learning Science: PH.9**



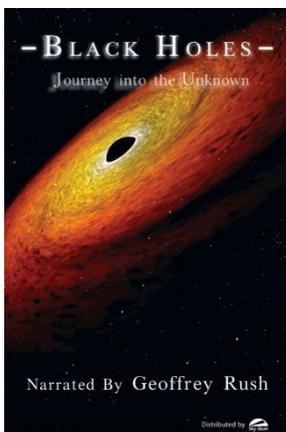
## Birth of Planet Earth

Birth of Planet Earth tells the twisted tale of our planet's origins. Scientists now believe that our galaxy is filled with solar systems, including up to a billion planets roughly the size of our own. This film employs advanced, data-driven, cinematic-quality visualizations to explore some of the greatest questions in science today: How did Earth become a living planet in the wake of our solar system's violent birth? What does its history tell us about our chances of finding other worlds that are truly Earth-like?

*Narrated by: Richard Dormer*

**Ages 8+**

**Virginia Standards of Learning Science: ES.2, ES.3, BIO.2**



## Black Holes: Journey into the Unknown

Imagine a place where time stands still; where the universal order breaks down; where the unimaginable becomes reality. Welcome to the world of Black Holes.

Presenting the latest scientific information, this new planetarium show brings to life all that is fascinating and extreme in the world of black holes. Witness what would happen if you got too close to one? What makes a black hole? How do we find them? Would you survive falling into one?

*Narrated by: Geoffrey Rush*

**Ages 13+**

**Virginia Standards of Learning Science: PH.3, PH.7, PH.9**



## Capcom, Go! The Apollo Story

An immersive, historical documentary that showcases the achievements of the Apollo program and what it took to put the first human on the Moon.

It introduces a new generation to the immense challenges they overcame and will inspire them to become the explorers, designers, engineers, thinkers and dreamers of the future.

**Ages 8+**

**Virginia Standards of Learning Science: 6.2, 6.3, ES.2, ES.3**

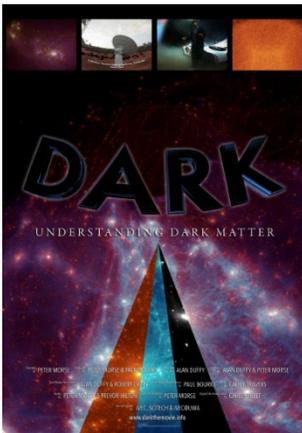


## Climate Change in Our Backyard

As we develop a much larger picture about our Earth as a whole, we are coming to see it as a complex, interconnected, remarkable world, and one that humans have impacted directly. Explore the role of carbon dioxide in our atmosphere, the natural temperature variations that the Earth has experienced over millions of years, and how humans are affecting our planet today. How are scientists learning about our changing climate, and what strategies are people from all across the world taking to protect our future?

**Ages 12+**

**Virginia Standards of Learning Science: 5.9, 6.9, ES.6, ES.9, ES.10, ES.11, ES.12, PH.5**



## DARK

The search for Dark Matter is the most pressing astrophysical problem of our time - the solution to which will help us understand why the Universe is as it is, where it came from, and how it has evolved over billions of years - the unimaginable depths of deep time, of which a human life is but a flickering instant.

We journey through completely immersive visualizations of Dark Matter evolution calculated upon some of the world's fastest supercomputers - cosmological visions on a truly vast scale, in which galaxies themselves are but points of light, distributed across far larger intergalactic structures of Dark Matter.

**Ages 13+**

**Virginia Standards of Learning Science: ES.2, PH.9**



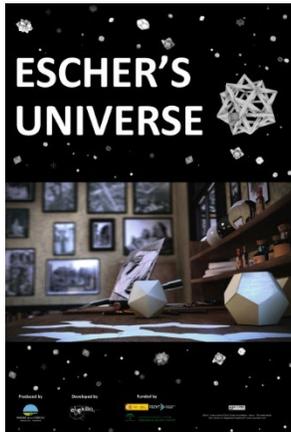
## Earth, Moon, and Sun

Explore the relationship between Earth, Moon and Sun with the help of Coyote, an amusing character adapted from Native American traditions. Coyote has many misconceptions about our home planet and its most familiar neighbors. His confusion about the universe makes viewers think about how Earth, Moon and Sun work together as a system and learn to distinguish between myths and science.

Learn the basics of fusion and solar energy and why the Sun rises and sets. Examine the Moon's orbit, craters, phases and eclipses. You'll even take a look at past and future space travel to our Moon ... and beyond!

**Ages 5+**

**Virginia Standards of Learning Science: 4.5, 4.6**



## Escher's Universe

For the first time, see M.C. Escher's use of mathematics, astronomy, optics, crystallography and geometry to artistically explain very complex concepts addressed by Cosmology.

This show will take us to the artist's studio where his most iconic works are displayed. From this intimate and emotional place, we will visit Escher's particular universe and we will be surprised by his unique ability to join Science and Art. We will also explore how Escher's visit to the Alhambra in Spain changed the way he understood universe and had a great impact in his work.

**Ages 8+**



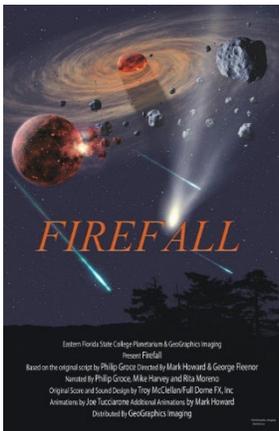
## Extrasolar Planets: Discovering New Worlds

We live on a small planet that revolves around a medium sized yellow star. It is just one among many stars that make up the Milky Way Galaxy. And yet, our star is special. It has planets. Are there planets that orbit other stars? If so, are any of them habitable worlds like Earth? If life developed on our planet, could it arise elsewhere? How can we find those other planets?

These are the questions that drive teams of astronomers around the world, on their search for extrasolar planets. This exciting new show describes how astronomers search for planets orbiting other stars.

**Ages 10+**

**Virginia Standards of Learning Science: 6.2, ES.2, ES.3**



## Firefall

Throughout Earth's violent history, impacts from comets and asteroids have mercilessly shaped its surface. The ancient barrage continues today; from harmless meteors - those brilliant streaks in the night sky, to mountain sized boulders wandering perilously close to Earth. Terrifying and majestic, these invaders from space are capable of utter destruction yet they have delivered life-giving water and most of the organic materials necessary for life. Life on Earth owes its very existence to these denizens of the solar system, yet it could all be wiped out in an instant. This ceaseless Firefall is our only tangible connection to the universe beyond and is an ever-present reminder of our own humble beginnings in the hostile environment of space.

**Ages 10+**

**Virginia Standards of Learning Science: 5.8, 6.2, ES.2, ES.3, ES.9**



## Forward! To the Moon

Kari Byron from *Crash Test World* and *MythBusters* launches us on a journey beyond the Earth towards a sustainable future in space.

NASA's 21st century Artemis program, named after the Greek moon Goddess and twin of Apollo, is the next step in our mission to explore the universe and land the first woman and person of color on the surface of the Moon. Produced by Fiske Planetarium in collaboration with TEND Studio.

*Narrated by: Kari Byron*

**Ages 10+**

**Virginia Standards of Learning Science: 6.2, 6.3, ES.2, ES.3**

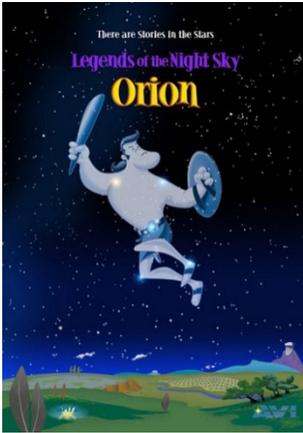


## From the Earth to the Universe

*From Earth to the Universe* is the world's first full-length full dome planetarium movie freely available for planetarium use. This stunning, 30-minute voyage through time and space conveys, through an arresting combination of sights and sounds, the Universe revealed to us by science. Take an in-depth look through our solar system, fly through our galaxy, see stellar remnants, and tour the Universe beyond the Milky Way.

**Ages 8+**

**Virginia Standards of Learning Science: 4.5, 4.6, 6.2, 6.3, PS.7, ES.2, PH.5, PH.9**



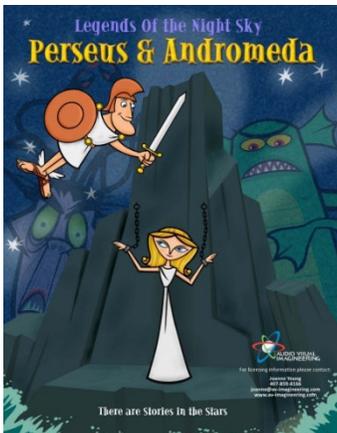
## **Legends of the Night Sky: Orion**

This laser show takes a lighthearted and imaginative look at the myths and stories associated with the constellation Orion, the great hunter of the winter sky. The show brings the mythological Orion to life in a fun-filled, animated adventure.

*This is a laser-based movie. Please consider this if you have a history of seizures or photosensitivity.*

**Ages 4+**

**Virginia Standards of Learning Science: K.9**



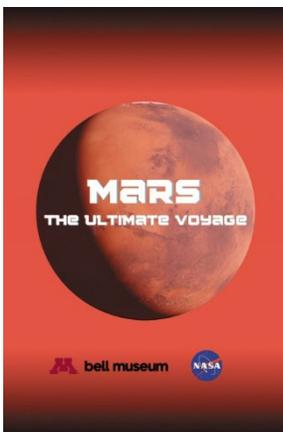
## **Legends of the Night Sky: Perseus and Andromeda**

Perseus and Andromeda is 18 minutes of full-dome, laser fun, while also teaching children and adults the Greek story about the stars.

*This is a laser-based movie. Please consider this if you have a history of seizures or photosensitivity.*

**Ages 4+**

**Virginia Standards of Learning Science: K.9**

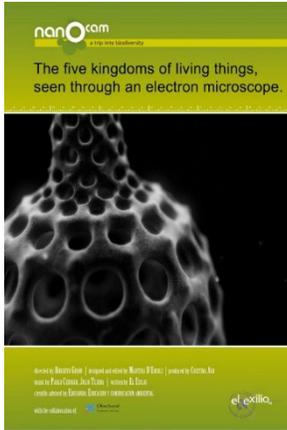


## **Mars: The Ultimate Voyage**

Join us on a journey to the Red Planet. What does it take to make it to Mars? In this new production designed by Morehead Planetarium and Science Center, we'll discover the many challenges astronauts will face and how creativity, communication, and collaboration are essential for deep space exploration.

**Ages 8+**

**Virginia Standards of Learning Science: 6.2, 6.3, ES.2, ES.3**

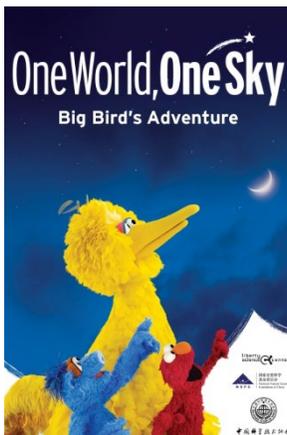


## NanoCam: A Trip into Biodiversity

NanoCam explores the kingdoms of bacteria, protists and their stunning mechanism of motility, the amazing structure of fungi, the specializations of plants and the incredible complexity of the animal kingdom, seen through an electron microscope – a breathtaking trip into the five kingdoms of living things. This unique program, based on a scientific approach and featuring images that have never been seen before, offers another dimension of reality, a reality that is measured in micrometers. NanoCam is a fascinating journey exploring life-forms that are invisible to the human eye and contribute to a better understanding of the world we live in.

**Ages 10+**

**Virginia Standards of Learning Science: 3.4, 3.5, 4.2, 4.3, LS.2, LS.3, LS.6, BIO.6**

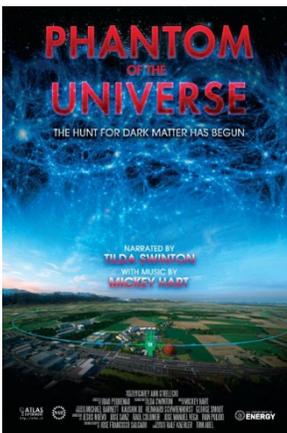


## One World, One Sky

Join Big Bird and Elmo as they explore the night sky with Hu Hu Zhu, a new friend from China. Together they learn how the sky, even in different parts of the world, are still one and the same. They also take an imaginary trip from Sesame Street to the moon, where they discover how different it is from Earth.

**Ages 3+**

**Virginia Standards of Learning Science: K.9**



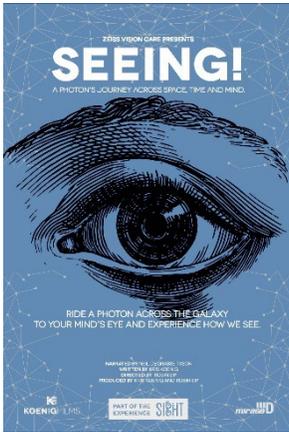
## Phantom of the Universe

From the journey of protons racing through the world's largest particle collider in Europe to up-close views of the Big Bang and emergent cosmos, Phantom of the Universe is a new full dome planetarium show designed to immerse audiences in the search for dark matter. A collaboration of Lawrence Berkeley National Lab, University of Texas at Arlington, Michigan State University, IFIC at University of Valencia, as well as other institutions.

*Narrated by: Tilda Swinton*

**Ages 10+**

**Virginia Standards of Learning Science: ES.2, PH.9**



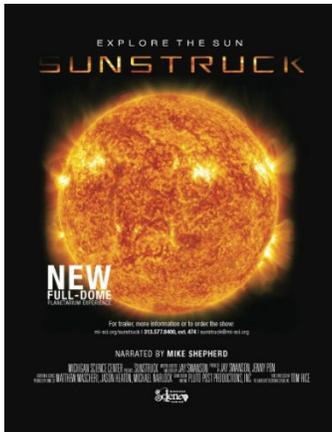
## Seeing!

Follow the journey of a single photon as it is produced in a distant star, before travelling across the vast expanse of space to land on someone's retina. This full dome planetarium show explores some of the fascinating processes of the cosmos, from astrophysics to the biology of the eye and brain.

*Narrated by: Neil deGrasse Tyson*

**Ages 10+**

**Virginia Standards of Learning Science: 5.6, BIO.2, PH.5, PH.6**

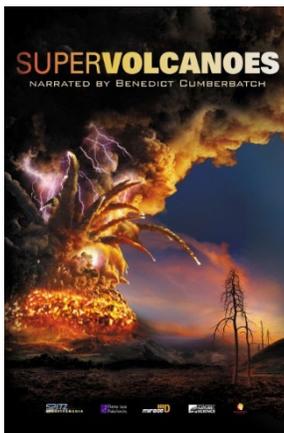


## Sunstruck

In this NASA funded show, take a journey to discover the "star" of our solar system (pun intended). While the Sun may be an average star, we want you to be *Sunstruck!* by just have magnificent it really is. Learn about its mass, composition, and structure. See how it produces all its light and heat. Discover how it powers itself for billions of years and the next stages of its stellar evolution.

**Ages 10+**

**Virginia Standards of Learning Science: 5.6, 6.4, PS.5, PS.6, PS.7, ES.2, ES.12, PH.5**



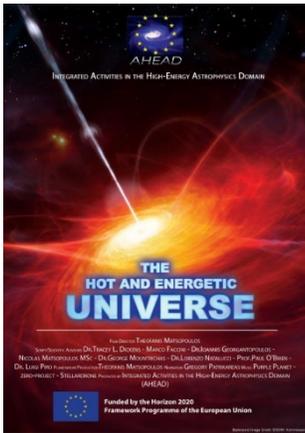
## Supervolcanoes

Supervolcanoes is an immersive planetarium show that looks back at rare classes of eruptions that have marshaled the energy that lurks, like a sleeping dragon, beneath the surface of planet Earth. The program moves beyond Earth to explore the impact of giant volcanic eruptions around our solar system. Audiences will fly down to Neptune's frigid moon Triton, and onto the ultimate volcanic world: Jupiter's moon Io. On a visit to a legendary North American hot spot, Yellowstone National Park, the film asks: can a supervolcano erupt in our time?

*Narrated by: Benedict Cumberbatch*

**Ages 10+**

**Virginia Standards of Learning Science: 5.8, ES.7, ES.9**



## The Hot and Energetic Universe

*The Hot and Energetic Universe* uses immersive visualizations and real images to present the achievements of the modern astronomy, the most advanced terrestrial and orbital observatories, the basic principles electromagnetic radiation, and the natural phenomena related to the High Energy Astrophysics (HEA).

HEA reveals processes in a hot and violent universe as it probes the hot gas in clusters of galaxies (the most massive objects in the universe) or the overheated gas accreting onto supermassive black holes. The high energy radiation provides important information about our own Galaxy, neutron stars, supernova remnants, and stars like our Sun.

**Ages 10+**

**Virginia Standards of Learning Science: PS.6, PS.7, ES.2, PH.5, PH.9**

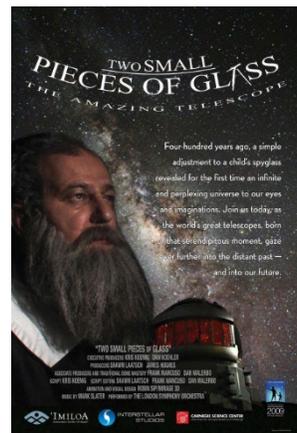


## The Sun: Our Living Star

The Sun has shone on our world for four and a half billion years. The light that warms our skin today has been felt by every person who has ever lived. It is our nearest star and our planet's powerhouse, the source of the energy that drives our winds, our weather and all life. The passage of the Sun's fiery disc across the sky — day by day, month by month — was the only way to keep track of time for countless past civilizations. Discover the secrets of our star in this planetarium show and experience never-before-seen images of the Sun's violent surface in immersive full dome format.

**Ages 10+**

**Virginia Standards of Learning Science: 5.6, 6.4, PS.5, PS.6, PS.7, ES.2, ES.12, PH.5**



## Two Small Pieces of Glass: The Amazing Telescope

Follows two students as they interact with a female astronomer at a local star party. Along the way, the students learn the history of the telescope from Galileo's modifications to a child's spyglass - using two small pieces of glass - to the launch of NASA's Hubble Space Telescope and the future of astronomy. Aiming to engage and appeal to audiences of all ages, the show explores the wonder and discovery made by astronomers throughout the last 400 years.

**Ages 10+**

**Virginia Standards of Learning Science: 5.6, PS.7**

