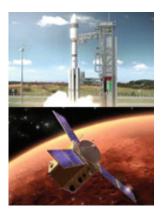


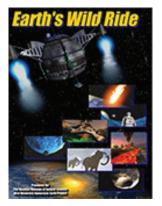
DESCRIPTION OF PLANETARIUM FILMS



Age Group: 7 -15
Duration: 8 minutes

UAE MARS MISSION

The United Arab Emirates is working on finalizing plans for its exploratory mission to the Red Planet, and the nation's leader has revealed new details pertaining to it. Mars will soon be playing host to another machine made by Earthlings. "Hope" has been designated as the name of the unmanned probe that will be making the 37-or-so million mile trek through space. A rough launch date of 2020 has been set, which coincides with the year Dubai will host the World Expo. It's expected that the car-sized craft will be in transit for 9 months and reach its destination in 2021, just in time for the nation's 50th anniversary. Once it arrives it will stay in orbit and perform atmospheric studies for a period of about 3 years. It's believed that gathering that information will be greatly beneficial in studying environmental and climate matters that are concerns on Earth.

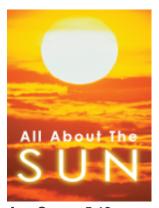


Age Group: 7 -15

Duration: 23 minutes

EARTH'S WILD RIDE

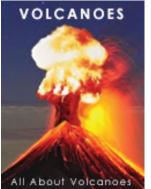
Imagine Earth were a distant place you once called home but could never visit again. What would you remember most about the planet, and how would you describe it to your grandchildren? Set on the surface of the Moon in the year 2081, a grandfather and granddaughter watch a solar eclipse from scenic cliffs overlooking their moon colony. Conversation leads to contrasts between the moon, the only home the granddaughter knows, and the Earth, where the grandfather has spent most of his life. As they watch the Moon's shadow move across Earth, the grandfather tells stories of crashing asteroids, erupting volcanoes, roaring dinosaurs, electrifying lightning and booming thunder. Each experience begins with a telescope view of the dynamic Earth in stark contrast with the unchanging lunar landscape.



Age Group: 5-12 Duration: 5 minutes

ALL ABOUT THE SUN

We all know that the sun lies at the heart of the solar system, where it is by far the largest object. It holds 99.8 percent of the solar system's mass and is roughly 109 times the diameter of the Earth — about one million Earths could fit inside the sun. Isn't is such a huge factor? But do we know that the sun is a giant ball of burning hot gasses, millions of degrees at its core! Let's learn more about it which is a star (yes, really!) that provides the heat and energy that life on Earth needs to survive. It may look peaceful from where we sit, but 93 million miles/150 million km away - that's how far it is the sun is churning and roiling with eruptions of radiation bigger than the earth!



Age Group: 5-12 **Duration: 7 minutes**



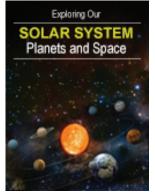
Age Group: 6-14 **Duration: 25 minutes**

ALL ABOUT VOLCANOES

The Earth is covered with a variety of different features. And Volcanoes is one of the most dramatic landforms of the planet. Volcanoes come in many different shapes and sizes. Volcanoes are as dangerous as they are majestic. Over 50 eruptions rock our planet every year. They are the manifestations of the fiery power contained deep within the earth. Learn how volcanoes form, what types and structures they can be, and what types of lava and rock they produce in this comprehensive introduction to volcanoes. With information on how volcanoes form and eruptions to watch, you'll love this video!

BIRTH OF THE MOON

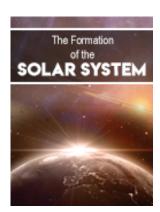
The Moon is thought to have formed about 4.51 billion years ago and some 60 million years after the origin of the Solar System. Scientists have been reconstructing the history of the moon by scouring its surface, mapping its mountains and craters, and probing its interior. What are they learning about our own planet's beginnings? It is the mysterious Birth of the Moon. The moon is Earth's nearest neighbor, but its origins date back to a violent birth billions of years ago.



Age Group: 6-13 **Duration: 12 minutes**

EXPLORING OUR SOLAR SYSTEM: PLANETS AND SPACE

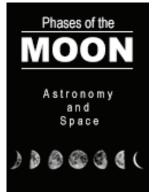
Have you ever looked up into the sky and wondered what was there? There is a whole host of fascinating objects spin in outer space and we call it Solar System. The first exploration of the Solar System was conducted by telescope, when astronomers first began to map those objects too faint to be seen with the naked eye. Here is an in-depth introduction to the Solar System and the planets that are in it. From the sun to why poor Pluto is no longer considered a planet, come along for a ride across the Solar System and learn a ton of cool facts about Solar System!



Age Group: 6-13 **Duration: 6 minutes**

THE FORMATION OF THE SOLAR SYSTEM

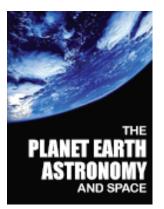
In the vast expanse, how did our Sun, the Earth and planets come? Our understanding of the solar system's evolution has greatly improved, but questions do remain. In beautiful 4K resolution, the story of how our Earth was formed four and a half billion years ago told from the perspective of an asteroid called Bennu (which has survived until now). NASA has sent a satellite to study Bennu and help us learn more about the beginning of our solar system.



Age Group: 8-13
Duration: 6 minutes

PHASES OF THE MOON: ASTRONOMY AND SPACE

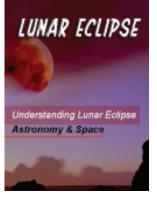
The moon is our nearest neighbor in space and the only heavenly body that people have visited. Each month the moon passes through eight phases. These phases are named after how much of the moon one can see, and whether the amount visible is increasing or decreasing each day. The moon changes its shape almost every night. But why? The phases of the moon are caused by the light from the sun and the moon's orbit around the Earth. From new moon through waxing crescent, quarter, gibbous, full moon, and waning back to new moon again, come learn about the cycle of shapes the moon takes (or rather, appears to take) as it travels around our planet.



Age Group: 8-13
Duration: 7 minutes

THE PLANET EARTH: ASTRONOMY AND SPACE

Our home planet Earth is the third planet from the sun and the only object in the Universe known to harbor life. Earth formed over 4 billion years ago. During one orbit around the Sun, Earth rotates about its axis about 365.26 times; thus, an Earth year is about 365.26 days long. We have one moon, liquid water, and life! Earth is the only planet we know suitable for life, so let's take care of it, shall we? Learn about the layers of the earth, what our atmosphere does for us, and why years and days, the lengths they are etc.



Age Group: 8-13
Duration: 4 minutes

UNDERSTANDING LUNAR ECLIPSE

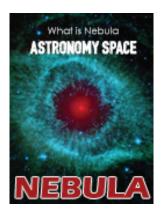
It's not often that we get a chance to see our planet's shadow, but a lunar eclipse gives us a fleeting glimpse. During these rare events, the full Moon rapidly darkens and then glows red as it enters the Earth's shadow. Though a lunar eclipse can be seen only at night, it's worth staying up to catch the show. Lunar eclipses are a fascinating astronomical phenomenon. Occurring about twice a year, lunar eclipses are visible from a much larger area of the Earth than solar eclipses and last much longer, making them perfect for observation by amateur astronomers. So what causes a lunar eclipse? And what makes them look red sometimes? Find out in this fun and educational video!



Age Group: 8-13
Duration: 4 minutes

UNDERSTANDING SOLAR ECLIPSE

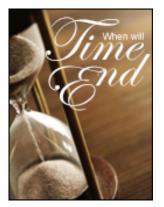
A solar eclipse occurs when the Moon passes between the Sun and Earth, and when the Moon fully or partially blocks the Sun. A solar eclipse is one of the most dramatic astronomical events it is possible to witness. They are caused by the shadow of the moon falling on the Earth when the sun, moon, and Earth are aligned correctly. To the people within the moon's shadow, the sun appears to disappear and the sky goes dark. Let us learn more about the Solar Eclipse.



Age Group: 8-14
Duration: 7 minutes

WHAT IS NEBULA

A nebula may just be an interstellar cloud of dust and gas, but it is also one of the most spectacular sights to be seen through a telescope. It is visible in the night sky either as an indistinct bright patch or as a dark silhouette against other luminous matter. Nebulae peppers the galaxy with beautiful colors, shapes, and lights. Learn more about this celestial phenomena, including the four major types of nebulae and see images of some of the most famous and noteworthy nebulae on record in this peaceful and educational video.



Age Group: 8-15
Duration: 26 minutes

WHEN WILL TIME END

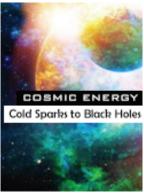
Our universe has existed for nearly 14 billion years, and as far as most people are concerned, the universe should continue to exist for billions of years more. All our lives are governed by cycles of waking and sleeping, the seasons of birth and death. And the question that arises in everybody's mind is "When Will Time End"? The answer to this question may depend on whether Stephen Hawking was right in his theory that describes how black holes shed mass and eventually decay. Time is flying by on this busy, crowded planet as life changes and evolves from second to second. At the same time, the arc of the human lifespan is getting longer: 67 years is the global average, up from just 20 years in the Stone Age. Let's have a look what this video has in store!!



Age Group: 10-15
Duration: 25 minutes

BLACK HOLES AND THE HIGH ENERGY UNIVERSE

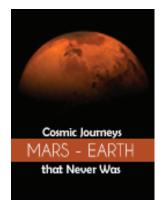
Have you all ever thought how did the universe come to be? How did galaxies, planets and solar system form? Astronomers are probing the high-energy cosmic frontier with a series of key missions: Fermi, Swift, Chandra, NuSTAR, and Hubble. This video was inspired by a NASA event at the National Air and Space Museum, called "Our Violent Universe."



Age Group: 10-15
Duration: 22 minutes

COSMIC ENERGY- COLD SPARKS TO BLACK HOLES

What's the hottest place in the universe? What's it like inside a Black Hole? How and where do Earth and humanity fit within the immensely powerful scales that define our universe? All across the immense reaches of time and space, energy is being exchanged, transferred, released, in a great cosmic pinball game we call our universe. We now journey through the cosmic power scales of the universe, from atoms nearly frozen to stillness. To Earth's largest explosions. From stars colliding, exploding, to distant centers of power so strange, and violent, they challenge our imaginations. This video climbs the power scales of the universe, from the coldest and bleakest reaches of our galaxy on out to the hottest and most violent places known.



Age Group: 10-15
Duration: 26 minutes

COSMIC JOURNEYS- MARS: EARTH THAT NEVER WAS

Since the early 1960s, 46 times trial was done to send spacecraft to Mars across the 55 million kilometers of its closest approach to earth. Over half failed at launch or upon arrival. Some flew around the planet, taking pictures, recording data, testing soils etc. but the questions which arises is- Did Mars long ago develop far enough for life to arise? If so, does anything still live within Mars' dusty plains, beneath its ice caps, or somewhere underground? Let's watch the video and see what it has in store.