Michelle Nichols

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All programs are appropriate for adults. If children wish to attend, it is at the discretion of their parents or guardians, though a general recommendation is that these programs would be appropriate for children ages 10 and up.

Don't see a topic you are interested in? Let me know if you have a theme to help connect to other programs you are planning. I can suggest something – or I may be able to create a new program for you.

Our Solar System

Available starting in Fall 2024: **Comets and Asteroids**
Studying comets and asteroids can help explain much about how our solar system formed 5 billion years ago. This program will showcase amazing closeup images and highlight what we currently know and what we hope to find out about these cosmic storytellers in the next several years.

Artemis: Returning to the Moon
In the next few years, NASA will land the first woman and first person of color on the Moon, exploring more of the lunar surface than ever before. The goal of Artemis is to establish the first long-term human presence on the Moon and, later, send the first astronauts to Mars. We'll discuss the plans and technologies that will get us back to the Moon for the first time since 1972.

12 Things that Make Life on Earth Possible
Earth has sustained life in many different forms for more than 3 billion years. We'll highlight an (incomplete) list of 12 things that make our planet special.

Icy Worlds
Ice: it's not just the stuff you shovel off the sidewalk. Many different ices are all over our Solar System – and it is really…*cool*…stuff to study. We'll investigate ices on hot planets and cold comets, moons made mostly of ice, flowing and floating glaciers, and even ice volcanoes.

Armchair Tour of the Solar System
Explore our Solar System without stepping foot outside! We will showcase some of the latest NASA spacecraft images of our Solar System, touching on our stunning Sun, planets, and so much more. *Note: This program can be presented as a one-evening program or as Part 1 of a two-evening program series with Armchair Tour of the Solar System.*

Past, Present, and Future

Where Do Constellations Come From?
There are 88 constellations that astronomers use to define the entire night sky. Where does the list originally come from and what are these constellations used for? We'll explore the history of how we got to this list and some of the people involved – and some of the constellations that were created and disappeared along the way.

Defining Time
What time is it? That has been a surprisingly complicated question to answer over the centuries! We'll venture through several thousand years of history in the human quest to measure and define time.

The Space Race
In the 1960s, the U.S. and the Soviet Union were locked in a race to send men to the Moon. How did it all begin? How did the Soviets try to beat the Americans? And, what happened to the Soviet effort after Neil Armstrong and Buzz Aldrin walked on the Moon in July 1969?

Women in Astronomy
Women have played a part in astronomical discoveries for centuries – but many of their stories are overlooked or untold. We will explore advancements made by several ladies of science, as well as the hardships they had to overcome to be able to explore the Universe.

Women in Space Exploration
Women have been involved in getting people to space for decades. Learn about several historic, though largely unknown, trailblazers.

Space Food
This presentation will highlight the development of space eats from the earliest days of space travel, show how food is eaten – and grown - on the International Space Station today, and what food might look like for future long-term space missions.

The Science of Climate Change
The concept of climate change is a hot topic these days. In this presentation, we will turn our attention to the science evidence: What does science say is happening? Where does the data come from? What might be in our future?

<u>Astronomy Near and Far</u>

The Webb Space Telescope
The Webb Space Telescope has begun to fundamentally alter our understanding of black holes, the early Universe, stars, planets, and more. Learn more about this groundbreaking mission as we explore the latest stunning images from the telescope. *Note: This program is updated frequently with new science results and images, as available.*

Looking for Earth Elsewhere
We have found more than 5,000 planets around other stars in the past 26 years. Some are similar to our own home planet – and some are just plain weird. Join us for an overview of the search for distant planets and what we've found so far.

Armchair Tour of the Universe
Go on a trip around the Universe without going outside! This presentation will take you on a whirlwind visit through our Universe's most amazing objects using images from the world's most advanced telescopes. *Note: This program can be presented as a one-evening program or as Part 2 of a two-evening program series with Armchair Tour of the Solar System.*

Skywatching

Skywatching Using Your Eyes

So much observation of our daytime and nighttime skies can be done without a telescope. This presentation will focus on an overview of celestial observations you can do with just your eyes, including Moon phases, eclipses, planets, stars, and much more in a session suited to an astronomy novice.
Note: This program will be updated for the time period of your specific program.

Skywatching Using a Telescope

Bring the Universe to your neighborhood! (Your library name here) (has/soon will have) (telescopes/a telescope) for you to check out and use at home. Learn how to operate this telescope and get tips for skywatching with your eyes and with mobile phones.
Note: This program is specifically for institutions that have, or soon will have, a telescope or telescopes for patrons to check out. I will tailor my program to the model of telescope that your institution has acquired.