

**Astronomers without Borders website - April is *Global Astronomy Month!***



<https://www.astronomerswithoutborders.org/gam2020-programs/astroarts/5413-imagining-black-holes-through-art.html>

## *Imagining Black Holes Through Art*

*By Kathleen Horner*

In this AstroCrafts project, we are going to be experimenting with different acrylic painting methods to create a black hole painting. Black holes continue to mesmerize and mystify scientists. American physicist Kip Thorne describes a black hole as "a point where all laws of physics break down." Just recently, we have for the very first time received a real glimpse of a black hole. That's exciting! Scroll down to the bottom of the page to see the historical photo and story. Enjoy your imaginative journey into deep space and get inspired to create your own original painting of a black hole. The whole family can play and learn together with paints with this artistic and creative AstroCrafts project. Wishing you all an exciting and fun Global Astronomy Month! Check it out using the above url link!

### **WHAT'S INSIDE A BLACK HOLE?**

## **What's Inside A Black Hole? | Unveiled (Adults)**

<https://www.youtube.com/watch?v=FoExpq04OQQ>

**NASA: Space Science & Astronomy For Kids: What is a Black Hole?** Space Place in a Snap is funded by NASA's Science Mission Directorate under the supervision of Ruth Netting. This is a great resource for providing bringing astronomy and space science to kids! Four example links are provided below:

<https://www.youtube.com/watch?v=XnFSia31PI0>

The Solar System's Formation - Space Place in a Snap

<https://www.youtube.com/watch?v=RT4OO0TFLHw>

Where Does the Sun's Energy Come From? - Space Place in a Snap!

<https://www.youtube.com/watch?v=GAGFC8-wn1g>

How does GPS work? - Space Place in a Snap!

Space Place in a Snap: Quick and fun answers to big science questions brought to you by NASA's Space Place!

<https://www.youtube.com/watch?v=RSA3feQ9gKk>

**Adult Learning Opportunities:**

Where Does Hydrogen Come From? Adults – older students... by Amy Shira Teitel

Hydrogen is everywhere, and many people think it's going to be the one of the best forms of alternative energy. Where did it come from, and how abundant is it?

<https://www.youtube.com/watch?v=Jro6uEaWfTg>

*A Great Introduction to Amateur Astronomy* - All footage captured in camera--no compositing by Wylie Overstreet and Alex Gorosh - A First Look at the Moon! We took a 12 inch Sky Watcher collapsible dobsonian telescope around the streets of Los Angeles to give passersby an up-close look at a familiar object: a new view of the moon! Enjoy – virtual star gazing!

<https://www.youtube.com/watch?v=XCrJ3NflOpE>

# What's Up? Webcast: Nightscape Camera Basics March 27, 2020

Sky-Watcher What's Up? Webcast: Nightscape Camera Basics (Episode 2) Learn the basics of capturing detailed nightscape and Milky Way images with your mirrorless or DSLR camera.

[https://www.youtube.com/watch?v=xxC8pAuWw34&fbclid=IwAR3pc9Tgi1zw4vWwFzCwzDGQ\\_h9UuLts-orfBVE05iS4qOyTsTPQ1gCHQVE](https://www.youtube.com/watch?v=xxC8pAuWw34&fbclid=IwAR3pc9Tgi1zw4vWwFzCwzDGQ_h9UuLts-orfBVE05iS4qOyTsTPQ1gCHQVE)



<https://science.nasa.gov/>

## The Search for Life: Exploring Ocean Worlds (live public talk)

Host: Brian White. The search for life is "civilization level science." What happens if or when we find it? Using the upcoming block of "Ocean Access" missions, astrobiologist Morgan Cable shows us why ocean worlds are important and what the discovery of life could mean to us as a civilization. Original Air Date: March 5, 2020 Presentation by Dr. Morgan Cable, Ocean World Scientist - Astrobiology and Ocean Worlds for NASA Jet Propulsion Laboratories – part of JPL's **Theodore von Kármán Lecture Series**, presented by the Communications and Education Directorate, aims to bring the excitement of JPL's missions, instruments and other technologies to an audience of both JPL employees and the general public 58 minutes long – Adult audience

<https://www.youtube.com/watch?v=-BktASuoO8c>

**More Opportunities for kids to learn are listed on the next page:**

# The Oceans - an intro for kids - Sanger

## Academy For Kids - Mar 19, 2016 Videos made by by Dr. Larry

Sanger, co-founder of Wikipedia! Excellent – well made!

Introduces the oceans to kids. Covers: bodies of water, proportion of water to land, brine, and the five (or four) oceans: Pacific, Atlantic, Indian, Southern, and Arctic.

<https://www.youtube.com/watch?v=XUAGVToKgLo> 7/7:5

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# Space - an intro for kids (4/4) - Sanger

## Academy – by Larry Sanger May 3, 2012 – Note: Please realize

that the Big Dipper is an asterism and not a constellation. It is a small part of the larger constellation of Ursa Major or the Big Bear! An asterism is a geometric shape composed of stars in the night sky that are part of a constellation – there are 88 constellations in the night sky which covers the Northern and Southern Hemisphere skies.

A general introduction to the topic of space, for young children. This installment, the last part of 4, introduces interstellar and intergalactic space. Topics in this installment include comets, the solar wind, the heliopause, the Oort Cloud, Alpha Centauri, the size of the sun relative to giants and supergiants, star colors, binary stars, brown dwarfs, white dwarfs, supernovas, pulsars, nebulae, constellations, galaxies, the Milky Way, the Local Group, and clusters of galaxies.

<https://www.youtube.com/watch?v=iXoLyn16-s0>

# The SETI Institute's Stuck at Home Survival Guide

[https://seti.org/seti-institutes-stuck-home-survival-guide?utm\\_source=seti10a\\_1&utm\\_medium=email&utm\\_campaign=SstarFY20&utm\\_content=link7&mkt\\_tok=eyJpIjoiWmpNNVlqUTJNRfkzWmpobCIsInQiOiJjNDkwd24zb051UElnY2ozWGQ2eW9uWnJdGZGc2prdWdUcnc5U0tpZTRreXZsa1B2TVVabWVUT25zMHZ4THh5QmVuY3NoYXdtQWt1S1dQRUVld2RVMFFnUitwTTF2YzRWWXJPYWZ3bFdGZEJRY2RJQ3p3OE5VczZTQlwvdUULS3cifQ%3D%3D](https://seti.org/seti-institutes-stuck-home-survival-guide?utm_source=seti10a_1&utm_medium=email&utm_campaign=SstarFY20&utm_content=link7&mkt_tok=eyJpIjoiWmpNNVlqUTJNRfkzWmpobCIsInQiOiJjNDkwd24zb051UElnY2ozWGQ2eW9uWnJdGZGc2prdWdUcnc5U0tpZTRreXZsa1B2TVVabWVUT25zMHZ4THh5QmVuY3NoYXdtQWt1S1dQRUVld2RVMFFnUitwTTF2YzRWWXJPYWZ3bFdGZEJRY2RJQ3p3OE5VczZTQlwvdUULS3cifQ%3D%3D)