Minnesota Mission Log



Newsletter: Fall 2018

Honoring a Teacher: Christa McAuliffe's Lost Lessons Brought to Life.

The first of Christa McAuliffe's lost lessons was released this past August, 32 years after the ill-fated Challenger Space Shuttle mission. Challenger Center, in partnership with NASA and STEM on Station, worked to complete several of the lessons Christa McAuliffe had planned for the Challenger STS 51L Teacher in Space mission. Working with Astronauts Ricky Arnold and Joe Acaba, both former classroom teachers, the demonstrations were filmed aboard the International Space Station and corresponding lessons were developed for classrooms. Several of the lessons were completed as originally planned by Christa and a few were reimagined based on materials available aboard the Space Station.

Courtesy: NASA

You can find the video and corresponding classroom lessons here: https://www.challenger.org/challenger_lessons/christas-lost-lessons/

Courtesy: NASA Ricky Arnold (ISS)

"As the living legacy of the Challenger crew, we are thrilled to work with NASA's educator astronauts to bring Christa's lessons to life," said Lance Bush, president and CEO, Challenger Center. "For more than 30 years, we have continued the mission of the Challenger crew, reaching more than 5 million students with our hands-on STEM programs. We are honored to have the opportunity to complete Christa's lessons and share them with students and teachers around the world."

MN State Fair STEM Day 2018

The Challenger Learning Center of Minnesota was honored to be asked back for the 9th annual Minnesota State Fair STEM Day on August 23, 2018. It was a record setting day for attendance so we had lots of kids and families at our booth working with our robotics. Thank you to all who stopped by!

If you are not familiar with this event, it is always the first day of the MN State Fair. It's a one day event that features over 30 STEM organizations with hands-on activities and interactive demonstrations for children of all ages.

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STEM Inspired Holiday Gift Guide

Top STEM Gifts for 2018… (in our opinion!)

We at the Challenger Learning Center of Minnesota have spent many hours watching kids play with these incredible toys and can highly recommend any of them for your science-loving boy or girl. Prices start at $20 and are listed in no particular order as they all rank pretty high on our list!

- **Telescope and Astronomy Kit** see it here
  - Do you have to find a gift for a space-loving kid? Check out this astronomy kit for beginners —they can look at craters on the moon, planets, stars and distant galaxies right from their own back yard. The kit includes a 700-millimeter refractor scope, two eyepieces, a Barlow lens and an image reversal lens so your view is never upside-down. The telescope comes with a tripod and a detailed instruction manual. ($120 on Amazon)

- **Junior Talking Telescope** see it here
  - This is a great toy for the littlest space fans to get them acquainted with the universe. This talking telescope does not have a magnifying lens for stargazing, but it is equipped with dozens of NASA images and audio clips with accompanying facts recorded by Emily Dawn Calandrelli, the host and producer of the television show "Xploration Outer Space." Recommended for ages 4 and up. Sells for around $44 on Amazon.

- **GeoSafari Jr. Solar Rover** see it here
  - Teach kids about solar power with this simple and fun little solar rover! The rover comes fully assembled and requires no batteries — only sunlight! Your child can steer the rover by casting shadows over either of the two solar arrays located on the sides. Once you get comfortable maneuvering the rover, you can set up an obstacle course with little traffic cones, or check out the included 20-page activity guide for more ideas. Recommended for ages 8 to 12. Sells for under $20!

- **LEGO Apollo Saturn V Building Kit** see it here
  - Lego's new Saturn V rocket and Apollo lunar lander building set comes with 1969 pieces to honor the year of the Apollo 11 moon landing. The set includes the pieces to build the rocket, the Apollo command module, lunar lander and crew capsule for splashdown on Earth after the moon mission is complete. Once it's built, the rocket stands almost 40 inches tall. It also comes with four tiny Apollo astronaut figures. You can find this at the LEGO store at the Mall of America, or online at other retailers. Sells on Amazon for $104.99.

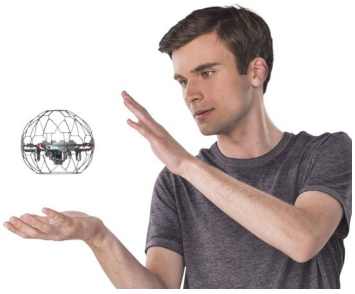
Check out our 2017 STEM Inspired Holiday Gift Guide for more great ideas.

STEM Inspired Holiday Gift Guide

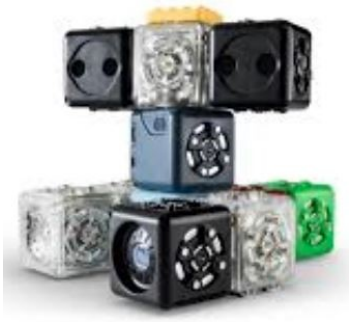
Top STEM Gifts for 2018 Continued...

- **Grow Your Own Galactic Galaxy!** see it here
  - Who wouldn't love to grow "alien invader plants" that are shaped like tiny rocket ships when they grow up! You can do just that with this out-of-this-world science kit! The terrarium comes with seeds to grow extraterrestrial fauna, a little alien figurine, glow-in-the-dark "asteroids," and plenty of stickers to decorate. Sells for under $20 on Amazon.

- **Air Hogs Supernova Flying Orb** see it here
  - This new toy from Air Hogs let you use the "Force" to control your very own drone! You can control this gravity -defying orb with dozens of different hand gestures, and there are nine different tricks to master. This is under $30 at Target.



- **Modular Robotics Cubelets** see it here
  - If you stopped by our booth at the AirExpo or the State Fair STEM Day over the past year or two, you probably played with our amazing Cubelet robotics. Many parents asked about these fun magnetic robotics, so we thought we would add them to our Holiday Gift Guide. These snap-together robot blocks use magnetic forces to create unique robots that have different behaviors based on how they were put together. There is no wrong answer! There is even a Bluetooth cubelet for more advanced learners where they can program it via Blockly visual programming—attach the Bluetooth cube to your robot and watch it perform as you programmed it! These are not cheap, but they grow with your learner. Individual cubes start at $26.95, or get a 12 cube starter pack for $299.95.



- **Wooden Space Ship Kit** see it here
  - Something for the art lover too! Paint a rocket, a UFO or a DeLorean time machine with Kid Made Modern's new wood-en spaceship kit. Comes with 12 different colors of acrylic paint and stickers to customize to your imagination. Sells for $23 on Amazon.

How Can You Help?

> Visit our website for more information and contact us to learn how you can get involved.

> Sign up for an individual or Family Membership, or consider a donation - information on the website: www.challengermn.org/membership.html

> Help us get the word out!

Challenger® LEARNING CENTER MINNESOTA

"Your vision is not limited by what your eyes can see, but by what your mind can imagine." - Ellison Onizuka, Challenger Astronaut

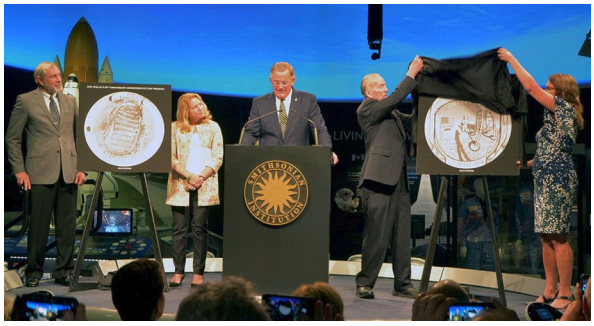
In The News:

50th Anniversary of Man Landing on the Moon

July 20, 2019 will mark 50 years since Neil Armstrong and Buzz Aldrin first stepped foot on the moon. NASA will celebrate the 50th anniversary of the Apollo program from October 2018 through December 2022, which landed a dozen Americans on the moon between July 1969 and December 1972.

Courtesy: NASA

The celebration kicked off in October 2018 with the 50th anniversary of Apollo 7 and the reveal of the U.S. Mint's commemorative coin to be issued in January 2019. Our board member, and six time NASA astronaut, Curt Brown was at the unveiling. Proceeds from the coins will benefit the Astronaut Scholarship Foundation, the Astronauts Memorial Foundation and the Smithsonian — the latter to support the National Air and Space Museum's "Destination Moon" gallery opening in 2022.

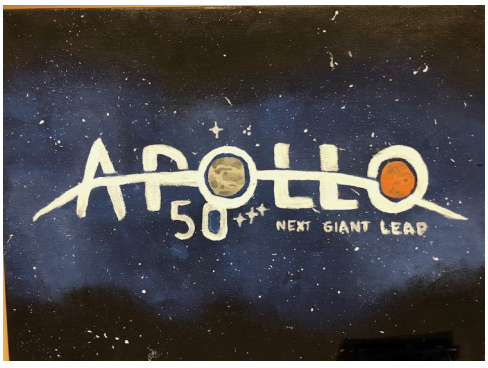


Courtesy: CollectSpace

The next milestone to celebrate will be the 50th anniversary of Apollo 8 in December 2018. Apollo 8 was the first manned spacecraft to leave low Earth orbit, reach the Earth's Moon, orbit it and return safely to Earth. Apollo 8 launched on December 21, 1968 and entered the moon's orbit on December 24, 1968.

STEM Spotlight: Young Inventors Corner

Local young artist adds "A" to STEAM



Thank you to Ashtyn K (age 13) for sending us this incredible replica of NASA's 50th Anniversary logo. Ashtyn used a blank canvas and acrylic pant to create her picture. When we asked Ashtyn what this painting meant to her she quoted Paul Brandt "Don't tell me the sky's the limit when there are footprints on the moon.". Very inspiring—great job Ashtyn!

NASA's logo shows their evolution from the moon to Mars. The three stars under the moon represent the three astronauts lost in the Apollo 1 fire (Gus Grissom, Ed White and Roger Chaffee). The arc through the word "Apollo" represents Earth's limb, or horizon, as seen from a spacecraft. It serves as a reminder of how the first views of Earth from the Moon, one of NASA's crowning achievements, forever transformed the way we see ourselves as human beings. It also affirms NASA's intention to continue pushing the boundaries of knowledge and delivering on the promise of American ingenuity and leadership in space for the next 50 years.

Do you have a cool invention or project you'd like to share? Send it to us at **info@challengermn.org** and you could be featured in an upcoming newsletter.