

*“It suddenly struck me that that tiny pea, pretty and blue, was the Earth. I put up my thumb and shut one eye, and my thumb blotted out the planet Earth. I didn’t feel like a giant. I felt very, very small.” – Neil Armstrong*

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### STEM in the News

NASA, Russia, and SpaceX have launched several spaceships to the international space station to extend the level of knowledge about space. NASA has sent many ships, most of which are cargo, to improve the safety of the astronauts. In other news, NASA just had a sci-fi fest, which is an engineering festival with tons of space activities. Finally, NASA states that they are going to send the first all-women crew to the moon in 2024. This will be a large step for women all around the world.

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### STEM Career Spotlight

Astronomers are scientists who put their studies outside the scope of our Earth. What they study includes planets, stars, moons, and more! Their average salary in the US is \$78,014 per year but other salaries can vary between \$14,000 and \$196,000 per year. In order to become an astronomer you need a Bachelor’s Degree in physical science, but some also pursue their Master’s and Doctorate’s degrees as well.

### STEM in History

On July 29, 1958, President Dwight D. Eisenhower signed the National Aeronautics and Space Act establishing NASA, which was founded on October 1, 1958 in the United States of America. The acronym NASA stands for National Aeronautics and Space Administration. Over the last 61 years NASA has continued to exceed the limits with revolutionary aeronautics research that has drastically changed the way we construct and fly airplanes. NASA has also completed the exploration of our solar system, with intense investigation of all the planets. NASA’s first manned spaceflight was Project Mercury. On May 5, 1961, Alan B. Shepard Jr. was the first American man in space; and on February 20, 1962, John H. Glenn Jr. became the first U.S. astronaut to orbit the Earth.

Resource: <https://www.wired.com/2010/07/0729eisenhower-signs-nasa-act/>

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### STEM Across the Curriculum

Be a Cosmic Poet

**Disciplines:** English Language Arts

**Activity:** Individual creative project

Learn how space technologies extend our knowledge of the Universe. Write a poem about the tools that make humans unique in the world--or the Universe!

Resource: <https://spaceplace.nasa.gov/classroom-activities/en/>

## STEM Movies

*First Man* is a recap of when Neil Amstrong and his fellow astronauts took flight into space risking their lives on a very dangerous mission. This movie explains how Neil Armstrong and his crewmates trained for this mission that completely changed the way people look at space now. *First Man* is really important to the world, because it depicts what Neil Armstrong had to go through to become the first man to walk on the moon, and what his fellow astronauts, Micheal Collins and Edwin E. Aldrin experienced as well. All of them left a mark on this Earth, and made important contributions to space exploration.

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*“Never limit yourself because of others’ limited imagination; never limit others because of your own limited imagination.” – Mae Jemison*

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## #STEM@ADM Spotlight

Alice Drive Middle School has been a part of a Student Spaceflight Experiments Program Missions 12 and 14. SSEP is a great real life opportunity for students to design their own experiment, test it and improve the design. The winning team’s experiment is sent to the International Space Station, where it is tested by astronauts and then sent back to Earth. Our current team is in its final stages of testing. Their experiment will go into space this fall. Stay tuned for more news!

## Famous STEM Person

Galileo was an Italian mathematician, physicist, philosopher, and astronomer. He was the very first person to ever challenge the church’s theory of the earth being the center of the solar system. He was also one of the inventors of the telescope. Galileo was known as the “father of observational astronomy”.

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## STEM Challenge

### Make Your Own Rocket

*Materials: Toilet paper roll, paint, three clothespins, styrofoam cone, markers, and glue.*

- Step 1. Get a clean toilet paper roll.
- Step 2. Paint the paper roll in any color.
- Step 3. Use the glue to connect the styrofoam cone to the top of the toilet paper roll.
- Step 4. Grab your three clothespins and clip them to the bottom of the paper roll.

Resource: <https://economyhandicrafts.com/blog/how-to-make-a-toilet-paper-roll-rocket-craft-july-4th-craft-diy-crafts-by-econocrafts/>

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## STEM Puzzle

See how many astronomy words you can unscramble.

- SAAN \_\_\_\_\_
- PASCEIPHS \_\_\_\_\_
- TNATSRAUO \_\_\_\_\_
- BEUALN \_\_\_\_\_
- OLASR YTSMES \_\_\_\_\_
- XEPEIERMNT \_\_\_\_\_
- POALLO 31 \_\_\_\_\_
- NATOORSRME \_\_\_\_\_
- RADKTMEART \_\_\_\_\_