



WEEKLY RECAP

UPPER SCHOOL
1/28-20- 1/31/20



ANIMAL CARE, GARDENING, AND FREE READ

DR. J, MS. ANGELA, MS. SAVANNAH

The majority of students are choosing to free read when they arrive while a handful of them are working with Dr. J and taking care of the animals. Free read happens inside and helps students calm their minds before the day's activities begin. Animal Care and Gardening allow students to actively help their community.

FACES OF THE SPACE RACE

INTEGRATED LITERACY/SOCIAL STUDIES

MS. SAVANNAH

This week, students learned about the important figures that were integral in the development and eventual win during the Space Race. Students started the week by learning what the space race was and choosing their historical figure to focus on. The students then spent the remainder of the week utilizing non fiction text to draw and utilize evidence in order to create a biographical poster. The posters came out really well! Check Brightwheel or come to 1861 to see them!

FACES OF THE SPACE RACE

INTEGRATED LITERACY/SOCIAL STUDIES

MS. ANGELA

Students answered the question: who were the important figures of the Space Race? They also learned which rockets were used leading up to the Apollo 11. They were able to state the significance of JFK, Buzz Aldrin, Michael Collins and Allan Shepard in our race against the Soviets to get a man to the moon. All of the students chose one aspect of the Space Race to research and share with our class. The lessons this week were student led. Skills focused on were research, making historical connections, note-taking, sharing of ideas, disseminating information, critical thinking, listening with consideration.

STRUCTURES THROUGH THE SOLAR SYSTEM

INTEGRATED LITERACY/SOCIAL STUDIES

MS. SAVANNAH

This week, students learned about the planets within our solar system and what it takes to sustain human life on them. Students spent the week drawing and utilizing evidence for a variety of non fiction texts in order to create a design plan for a structure that would sustain human life.

NASA/ART

INTEGRATED SOCIAL STUDIES/ART

MS. DENISE

This week was so much fun! The kids are SO CURIOUS about space exploration. We started our project yesterday by looking at art created in collaboration with NASA and completed "I see, I think, I wonder" charts. Next, we chose which News ELA articles about current space exploration interested us most, read them, and summarized our findings. For the rest of the week, the kids worked on creating 2-D or 3-D "illustrations" of what they learned - from how to bake cookies in space to laser video imaging from Mars.

INTEGRATED SPACE SCIENCE

INTEGRATED SCIENCE/MATH

DR. J

Students studied the hierarchy of the Universe; classifying, calculating, comparing and contrasting space objects on the basis of physical characteristics such as size, orbit, composition, gravitational force, length of day, length of year, satellites, color, density, temperature and location in the universe. Students learned that the Universe contains everything and everyone; it is a mind boggling concept including everything we touch, feel, sense, measure or detect, all living things, planets, stars, black holes, light, gravity and so forth, even energy and time! Students learned that scientists call the next largest classification of matter “galaxies”, which can be further classified into star clusters and solar systems. Students discussed and sketched the different types of galaxies and made a model of our home galaxy, The Milky Way, with our solar system prominently labeled on the end of one of the arms of our spiral. Students used their imaginations and creativity to design their own hypothetical, unique “irregular” galaxy model. Students also created a 2D model of our solar system, listing all the planets and space objects known in our system. Students compared and contrasted stars, our sun, our 8 planets, asteroids, and comets. Finally, students created 3D models of asteroids and comets in an experiential activity designed to help differentiate these commonly confused space objects. Our Space Week elective concluded with an amazing trip to the Kennedy Space Center Visitor Complex and included a special education program on NASA technologies, including Artemis, the next lunar exploration program which will feature the first woman to walk on the moon and a lunar satellite base station.

Mid-week, we were also treated to a guest speaker, Mr. Gary Vaiskauckas. Gary was a young boy when the Apollo 11 landed on the moon, creating a passion within him about space and space travel. He later went on to create code for NASA's Space Shuttle program. Gary taught our students about how coding was used to fuel the rockets for the Shuttle program as well as the many safety checks which were performed prior to each Shuttle Launch. Gary commented on how bright our group was and told them about the ways in which math and science proved helpful in his achievement of acquiring a job in the field he felt passionate about.

SPACE TECHNOLOGIES

INTEGRATED SCIENCE/MATH

MR. DAVE

Throughout the week, the students learned about the space environment and the biggest challenges to keeping humans safe during flight. Charged particle radiation is a severe hazard outside of low-Earth orbit and we built a cloud chamber to visualize radiation at ground level. We then tackled the most significant technology for spaceflight - power. The students broke into small groups and each constructed a working fuel cell from a 9V battery, metal leads, and water. They were able to see the electrolysis of water in action and used a voltmeter to see how water became its own battery. They then learned about celestial navigation and how the Apollo astronauts used the stars as a “GPS.” The students built their own sextants and used geometry to map unknown distances in the school yard. We freeze-dried pineapples and bananas with dry ice and finally learned to trust our machines by simulating rendezvous and docking using two smartphones and a remote control car.

THE SOLAR SYSTEM

INTEGRATED MATH/SCIENCE

MS. ANGELA

Students learned about our solar system and are now able to identify the 8 planets within it. They also learned each planet's distance from the sun and why Earth is the most habitable planet. The students shared their background knowledge of the 8 planets, our galaxy, the universe, and black holes. Their curiosity about aeronautics and space made this a very fun and exciting week of discovery and discussion. Skills focused on were listening with consideration, units of measurements, converting kilometers to astronomical units (AUs), and critical thinking.

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