



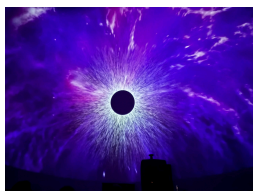
SPARKNotes

Students Pursuing Advanced Reasoning & Knowledge

May 9, 2025

Planetarium Field Trip

May 2, 2025 was National Space Day. To honor the spirit of ongoing efforts to explore the cosmos, a new U.S. Space Force documentary called "Always Above" was featured in planetariums throughout the country. Its title is taken from the English translation of their Latin motto, "Semper Supra" and was conceived as an inspiring educational tool to teach about the goals and aspirations of this newest branch of the U.S. Armed Forces formed in 2019 that believes in "keeping space safe and accessible to all." One of their jobs is to protect our satellite system. Currently, there are 12,149 active satellites in various Earth orbits. Most of them are owned by the U.S. and 61% of them are used for communication.



We watched two other shows, Monsters of the Cosmos and Passport to the Universe, which states, "We are living in the golden age of astronomy. We are mapping the grand structure of the universe, tracing its ancient past, finding our place in its great story. We are citizens of the cosmos." I told our guide to speak to the students as if they were high school astrophysics students. I was especially proud of how Conner, Wilson, and Leo were able to answer

his very difficult questions. My brain hurt just trying to comprehend infinity, black holes, white holes, wormholes, and dark matter. I told our students that I hope one of them will be able to unravel these mysteries some day.



Students also got to learn about and pet a snake and an American alligator.

Lesson Summaries

Geometry

We went over the Geometry Practice Test they took last week. We solved each confusing problem together on the board, including those that the students skipped. Each question corresponded to a Florida Geometry standard, so I took note of the types of questions that students frequently missed. We discovered that we need to work more on the interior and exterior angles of polygons, as well as the properties of special parallelograms in proofs.

Algebra

We continued working on quadratic equations and graphs. We practiced finding x- and y-intercepts, completing the Square to find x intercepts, and using the quadratic formula. We will wrap up this unit next week and move into our final concepts for the year in order to complete Algebra.

Math

Last week we wrapped up 2D shapes and calculating area and perimeter. This week, we began 3D shapes, calculating surface area, and identifying the difference between prisms, pyramids, and other three-dimensional shapes.

Science



On Tuesday, I timed the students on their second 40-foot dash after watching a video on the physics of sprinting to see if they could make adjustments to improve their time. This weekend, students will be researching the physics involved in a sport of their choice and will demonstrate it to the class next week.

On Thursday, students used the formula: $\text{work} = \text{force} \times \text{distance}$ to calculate work in Newton-meters, also called *Joules*. Only about half of them could raise the bucket of heavy textbooks 2 ½ meters.



Language Arts Blue

Students looked at and compared advertisements from 1900 to 1960. Ads reflect the culture so a lot could be observed about clothing, hairstyles, values, and the changing roles of men and women over the decades. In the last 50 years, billions of dollars have been invested in marketing to the youth. I told the students that their parents pay money for their clothing and accessories and, in return, these companies get free advertising. We went around the class and looked at how many students had a product's name and logo in their possession. Here's just a sample: Nike, Adidas, Under Armor, Reeboks, Lulu lemon, On Cloud, Uggs, Quicksilver, Polo, Crocs, Yeti, Abercrombie & Fitch, Pacific Sunwear, Puma, Disney, Pink, Hoka, Stanley, Owala, Converse, Skechers, Hurley, Aerie, New Balance, Bebe, Gucci, Cat & Jack, and Apple.

Language Arts Green

Besides fake news, another pitfall of social media is cyberbullying. As a class, we defined what cyberbullying is and the different forms it can take. We also discussed ways to handle it and how to protect themselves from it.

On Thursday, the students were assessed on their SPARK Tank presentations. We only got halfway through so we will finish them next week.

Social Studies

On Tuesday, we reviewed the copious amount of Judicial Branch notes, focusing on Supreme Court case studies along with the process of a criminal trial and a civil trial. Next week, we will complete a Mock Trial for the students to role play different characters such as a judge, attorney, witness, bailiff, and jury members. On Thursday, the classes were combined to create a Mock Government. We began by dividing roles, starting with the executive branch. The students voted Lillie as President (Declan was a close second), so she got to choose her Vice President, Elizabeth. For the judicial branch, I selected three students who took pristine notes on the Constitution and Amendments in class, Sonia, August, and Genevieve, so they got to be Supreme Court Justices. The five oldest students got to be in the Senate, and the remaining were in the House of Representatives.



Executive Branch

Judicial Branch

Senate

House of Representatives

Once the committees were selected, any student from the legislative branch was allowed to propose a bill related to anything regarding SPARK or U.S. politics. Students deliberated, added clauses to the bills, and then voted in the House and Senate to pass the bill. The final step was for President Creve-coeur to sign the bill into law or to veto it. The judges could interrupt a discussion at any time if it became unconstitutional. Many issues were covered over a two-hour period, but only six bills made it to a vote and only three passed. An example of a law that passed was allowing different activities besides reading during our after lunch Silent Reading Time at SPARK. An example of a bill that failed was U.S. government spending in foreign wars.