



ACADEMIC REVIEW

THE HOMESTEAD SCHOOL
COLLABORATIVE COLLEGE HIGH SCHOOL [CCHS]
HURLEYVILLE, NY

19 April 2024 | v. 2

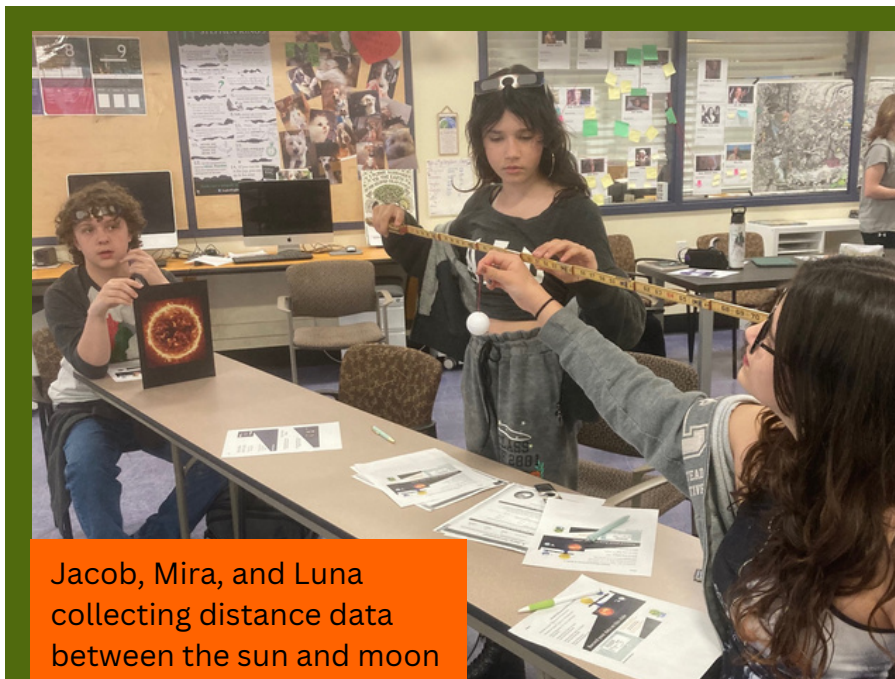


Best seats on the planet! Our upperclassmen traveled north to the Adirondacks to be in the solar eclipse's path of totality.

Celebrating and Investigating the Total Solar Eclipse of 2024

Tom Desiderio / Science

To celebrate and investigate the cosmic event, students worked together on an interactive exploration. We began by discussing the sun, earth, moon system. The room was then darkened and student volunteers used props to model the phases of the moon for the group. Then, we reviewed how total solar eclipses are related to the moon's procession, when eclipses can occur, how often they



Jacob, Mira, and Luna collecting distance data between the sun and moon

occur, and different types of eclipses. Next, students formed groups and worked collaboratively to recreate the phenomenon of a total eclipse with lesson materials. Each group made distance measurements and submitted their data. The whole group came back together to analyze the data and make conclusions. Students were excited to discover, through their data, that the relationship between size and distance of the sun and moon must be equal for a total eclipse to occur. Our activities culminated in witnessing the eclipse itself. What an awe-inspiring experience to witness as a school community!



Pi Day 3.14.24: Solving for Pi

Toni Carnesi-Montemurro / Math: Pre-Algebra

Discovering through measurement of minced meat pies...students were able to measure the circumference and diameter of each pie to verify that circumference divided by diameter is equal to $22/7$, also known as the irrational number Pi!

Once solved, students were encouraged to think about how they could estimate or measure the volume of the pie, applying what they have learned thus far about area and surface area, etc.

Algebra students were able to discover the formulas for both right angle cylinders and cones as a result of the investigation. Then all who were interested tasted/ate the minced meat pies.

Pi Day Recital Competition



Congratulations to our winner Luna B for reciting pi to the 42nd (YES, 42nd!) decimal!

Einstein Tessellations

Chieh de Jong / Math: Pre-Algebra

"In plane geometry, the einstein problem asks about the existence of a single prototile that by itself forms an aperiodic set of prototiles; that is, a shape that can tessellate space but only in a nonperiodic way." ("Einstein problem" Wikipedia, 17 April 2024)

The 7th/8th grade pre-algebra students participated in discovering this for themselves in a hands-on lab making "Einstein" tessellations (a word play on ein Stein, German for "one stone"). To explore mathematical concepts such as aperiodic patterns, randomness, and infinity, they cut out the 13 sided polygon pattern out of fabric and joined the pieces, like a puzzle, to then sew the design to make a quilt.



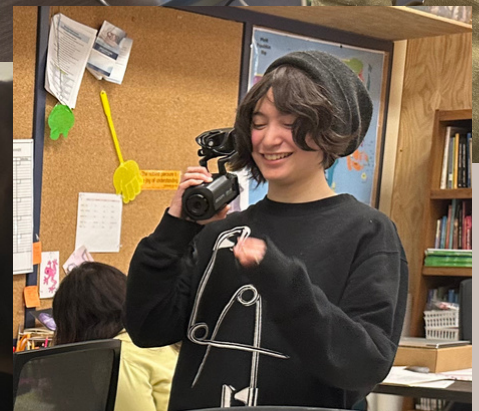
Pre-algebra students working with, and sewing, 13 sided prototiles



Making A Video Piece in 16 Hours

Zarah Cabañas / Media Arts Foundations

From the first moments Media Arts Foundations students walked into the Digital Media Lab this quarter, they were immersed in the hands-on world of production meetings, story outlines, 4K video cameras, LED lighting, green screen sets, crew positions, video editing, and sound mixing. Our 7th graders were each tasked to develop an idea, work in a crew to direct their shoots, and edit their footage into a video piece using Adobe Premiere Pro or Capcut. In a span of 8 weeks, for a total of 16 class hours, our 7th graders have created an incredible array of murder mysteries, dramatic skits, comedic spoofs, and visual experiments. It's been a fun and productive time as students learn the ins and outs of media making tools, collaborate on ideas together, and discover their emerging creative voices.



The Book Shelf

Titles new and old we recommend.

THE NEW YORK TIMES BESTSELLER
AN INSIDE-OUT GUIDE TO THE EMERGING
ADOLESCENT MIND, AGES 12-24

BRAINSTORM

THE POWER AND PURPOSE
OF THE TEENAGE BRAIN

DANIEL J. SIEGEL, M.D.

bestselling author of *The Whole-Brain Child*
and *Parenting from the Inside Out*

Brainstorm: The Power and the Purpose of the Teenage Brain
By Daniel J. Siegel, MD

A Quote from Maria Montessori

"The things he sees are not just remembered; they form a part of his soul."

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