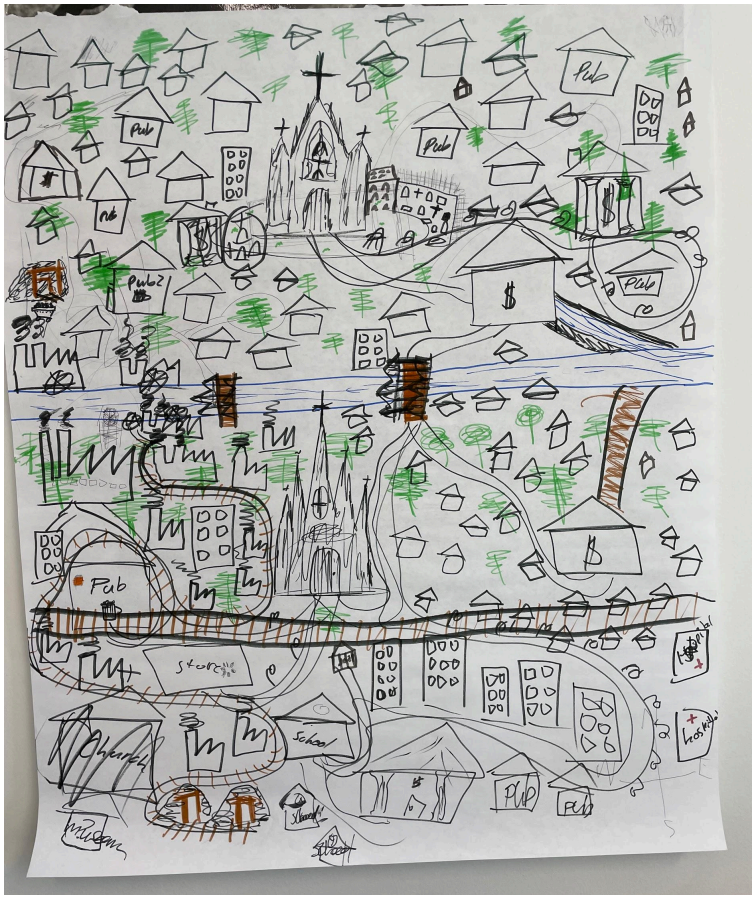
Sandy Spring Friends School | Green Schools Application | Objective 1.1

GRADE	Grade 10
STUDENT COUNT	23
CLASS	World History II
DATE	December 2025
LESSON	Urbanization Game
TEACHER	Allison Chang

Lesson Description:
In World History II, students participate in the Urbanization Game, a hands-on activity exploring the environmental impact of industrialization. The lesson is connected to place-based learning on the Underground Railroad Experience Trail, located in our campus backyard and part of the SSFS campus. Working in pairs, students map how an English village changed from 1700–1850 as factories, railroads, canals, and housing were added, analyzing how industrial growth reshaped landscapes and natural systems.

Documentation/Files/Images:
Photos attached below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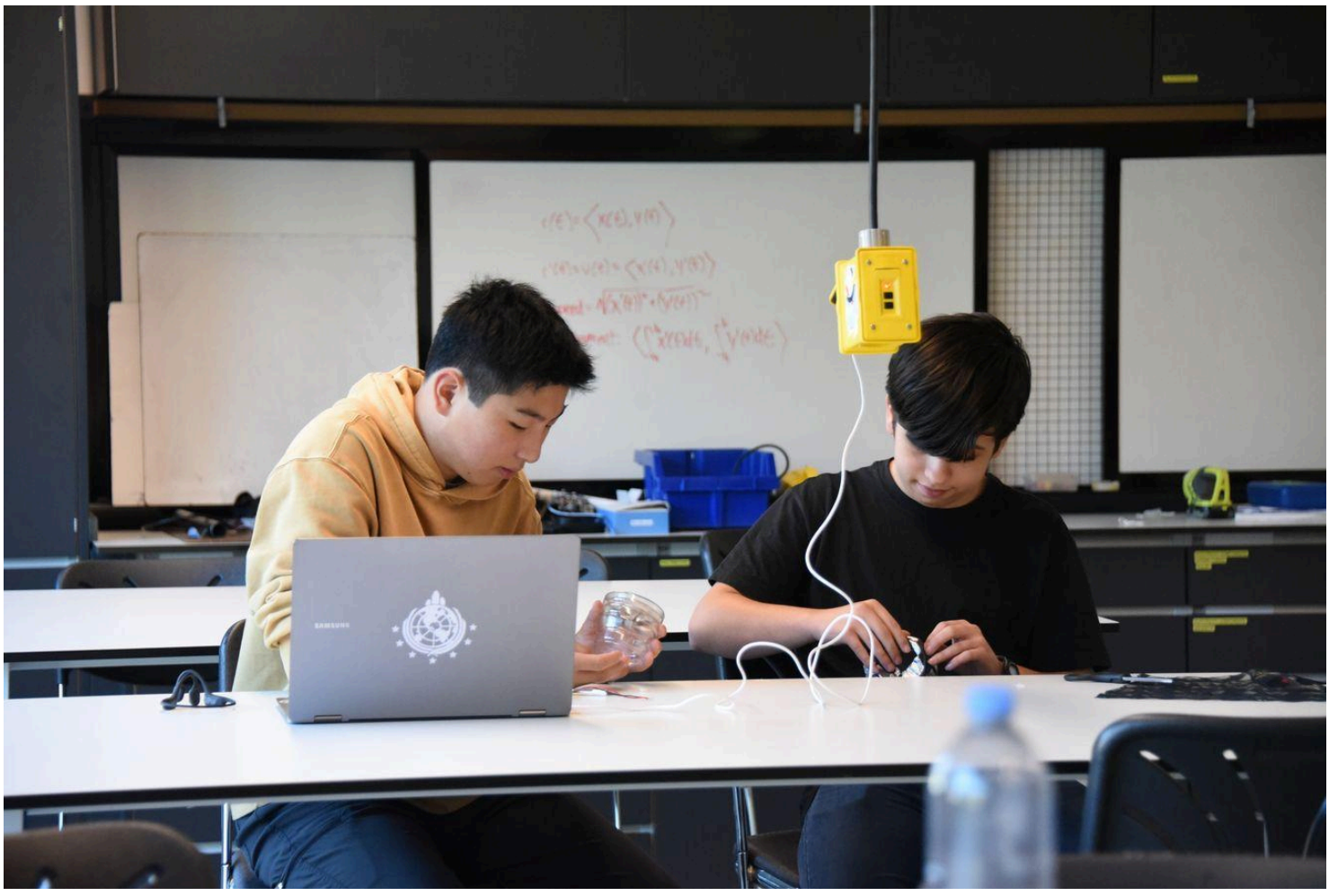
GRADE	Grades 10-12
STUDENT COUNT	10
CLASS	Intro to Engineering
DATE	November 2025
LESSON	Green Energy Harvest
TEACHER	Yuba Bhandari

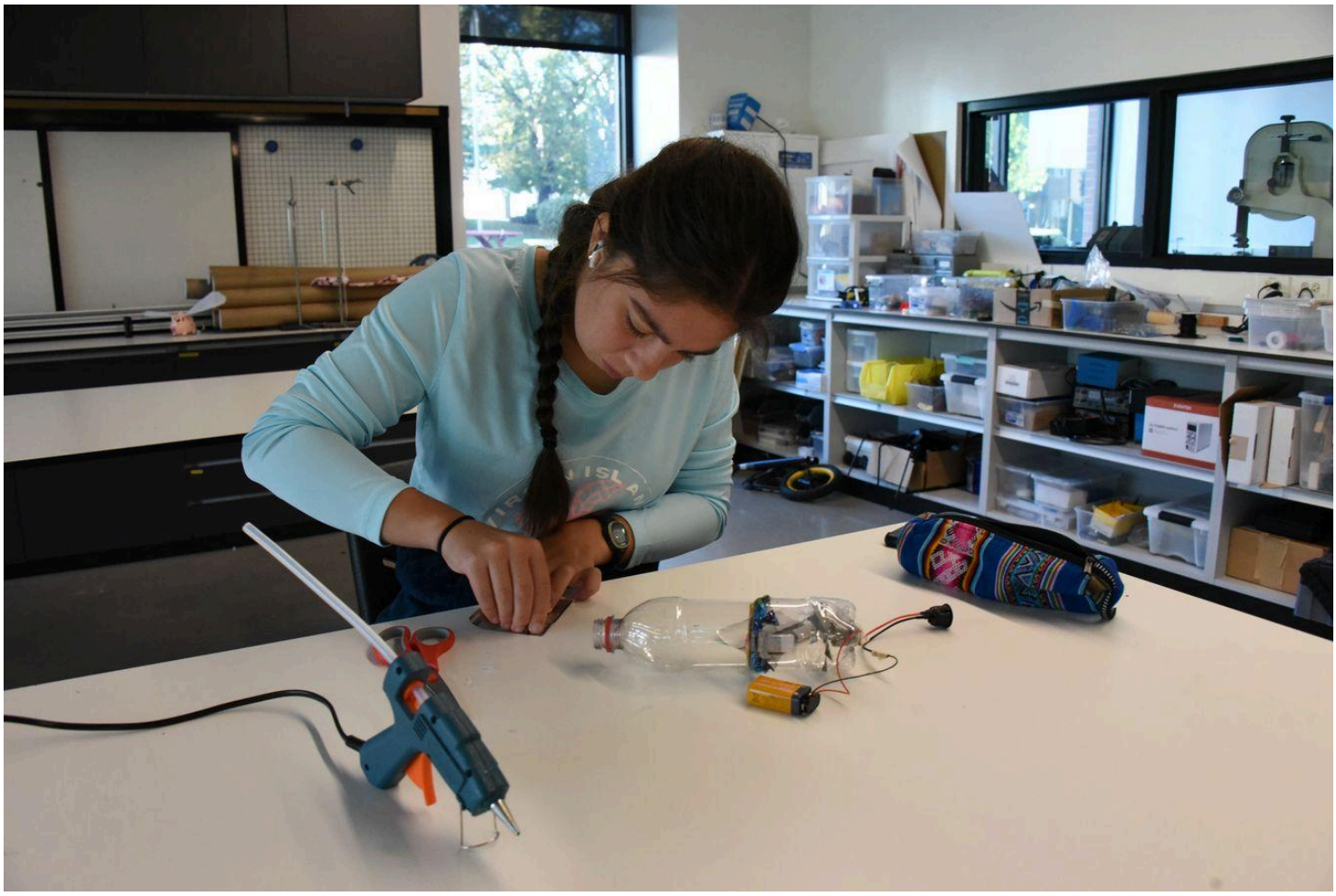
Lesson Description:

Students studied renewable energy by designing and building model wind turbines to explore how wind can be converted into electrical energy. Working in small groups, students researched wind energy, sketched and built their designs, tested how their turbines performed, and made adjustments based on what they observed. The project took place in the Upper School Makerspace, where students used school tools and materials to construct and refine their models while documenting their progress and measuring electrical output.

Documentation/Files/Images:

- Assignment: clean energy project.docx
- Photos attached below





GRADE	Grades 10-12
STUDENT COUNT	15
CLASS	AP Environmental Science
DATE	January 30, 2025
LESSON	The Value of a Tree
TEACHER	Michael Tornabene

Lesson Description:
The students went out, identified trees using a tree ID app, a handbook, and my guidance, and took a few measurements of it. They used those measurements in tandem with some allometric equations put out by the EPA to calculate fairly accurate estimates of the measurable benefits that tree has for the local habitat. It also generates data that gives them an idea of how much it would cost to provide the same value via another form of intervention, which would likely be necessary to prevent significant ecological degradation and habitat loss (which would lead to much more significant economic costs as the students have learned at other points in the year). It's always followed with a short structured in class debrief discussion with prompts based on the specific questions the student had in a given year.

Documentation/Files/Images:

- Assignment: 5.17.APPLY - The value of a tree
- Photos attached below

GRADE	Grades 10-12
STUDENT COUNT	5
CLASS	Weaving and Fibers
DATE	May 4, 2025
LESSON	Sheep to Shawl
TEACHER	Heidi Brown

Lesson Description:
Students competed in the 2025 Maryland Sheep & Wool Festival “Sheep to Shawl” competition. In under three hours, teams sheared a sheep, carded and spun the wool into yarn, and wove it into a finished shawl, demonstrating the full fiber process from animal to textile. Through this work, students explore sustainable fiber systems, animal stewardship, and the environmental impact of textile production. Additional entries in the Skein and Garment Competition further showcased their understanding of natural materials and traditional craft.

Documentation/Files/Images:

- SSFS blog post