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EST. 1927 | PRESCHOOL – GRADE 6

Mount Alvernia Academy NEED Level 1 Presentation 2024

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MAA Grade 4-6 Students investigated the advantages and disadvantages of various renewable energy sources including hydro energy, wind energy and solar energy. The experimental objective for our project was to design and conduct experiments to investigate the efficiency and feasibility of different renewable energy technologies. Additionally, our environmental impact objective was to assess the environmental impact of renewable energy sources compared to traditional fossil fuels. In general, MAA's NEED project encourages students to evaluate the reliability of sources, analyze data, and draw evidence-based conclusions about renewable energy and their potential impact.

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Promoting Environmental Awareness for a Sustainable Future

Our science curriculum throughout the year has been dedicated to promoting environmental awareness and fostering a culture of sustainability within our community. In a world where the reliance on non-renewable energy sources poses a significant challenge, it is imperative that we take action to mitigate the adverse effects on our planet.The depletion of finite resources like fossil fuels and the resulting emission of greenhouse gases are pressing concerns that demand our attention. These factors contribute to climate change and threaten the delicate balance of our environment, underscoring the urgency of our mission. Students have taken the lead in this endeavor, engaging in various projects and lessons designed to instill environmental consciousness among their peers and the wider community.

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Fourth-grade students enthusiastically participating in activities like the NEED chant, reinforcing the core message of environmental responsibility.

Our commitment to sustainability extends beyond the classroom through practical initiatives like our school-wide recycling program. With the dedicated involvement of 25 students, we work collaboratively to reduce waste and promote recycling practices throughout our school community.

Additionally, through a grant from Trout Unlimited and support from Massachusetts Wildlife, we have enhanced our project by introducing students to the intricacies of watershed ecosystems. Raising trout and learning about their habitat not only enriches our understanding of environmental science but also deepens our appreciation for the interconnectedness of all living beings.

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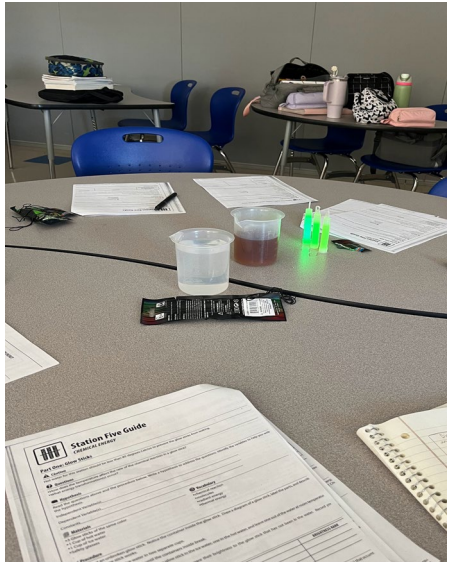

We researched the CO_2 in the atmosphere for the past 10 years and we learned …

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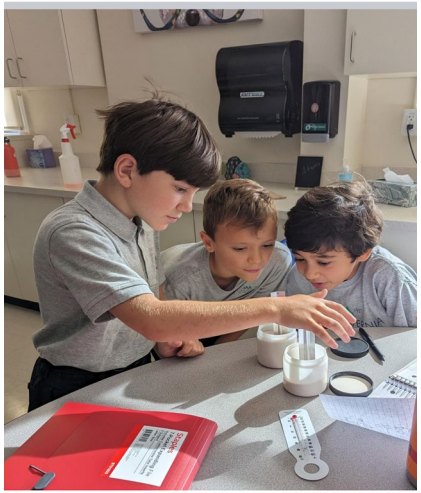
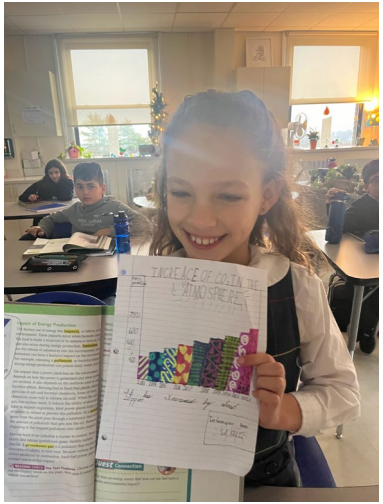


Shaking containers of sand will cause the temperature to increase.



We need more trees!

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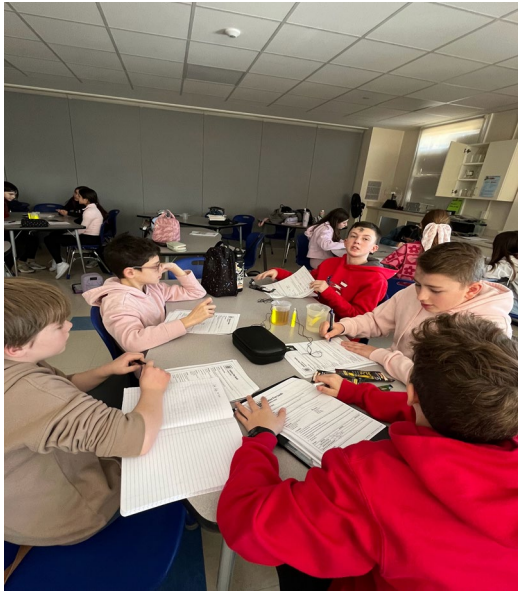
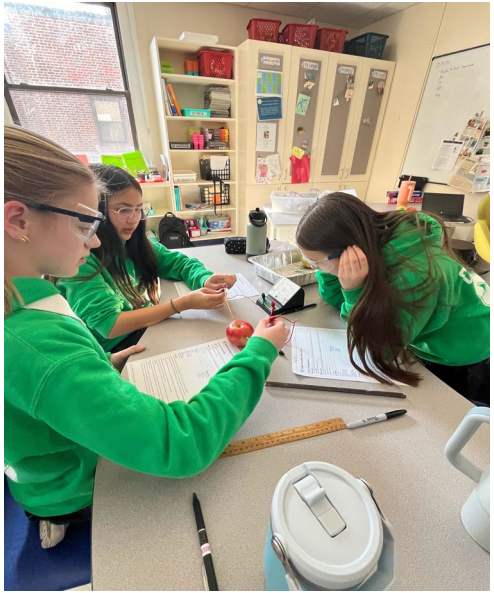
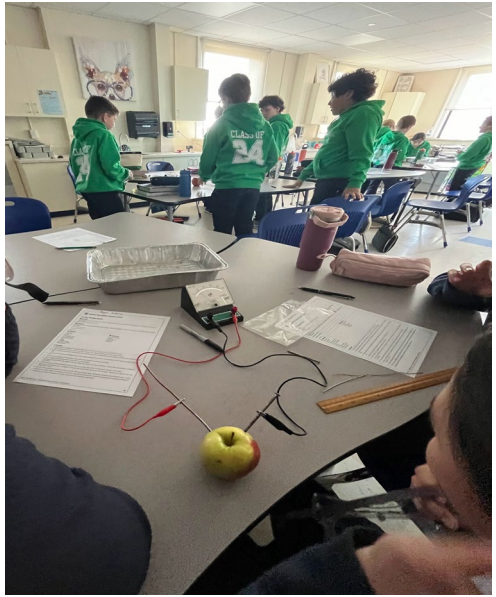
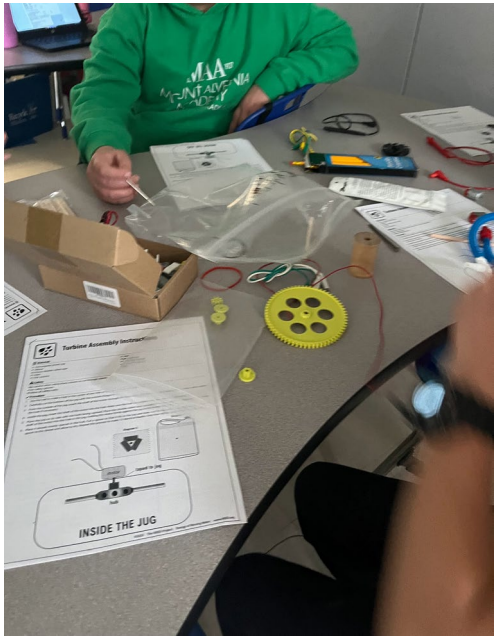






MAA 6th Grade students learned about hydropower…

Students built and experimented with a makeshift hydropower plant with a pencil, foam cups, thread and more!



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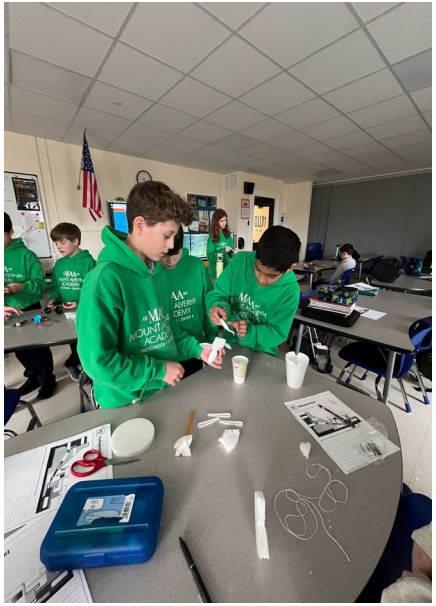
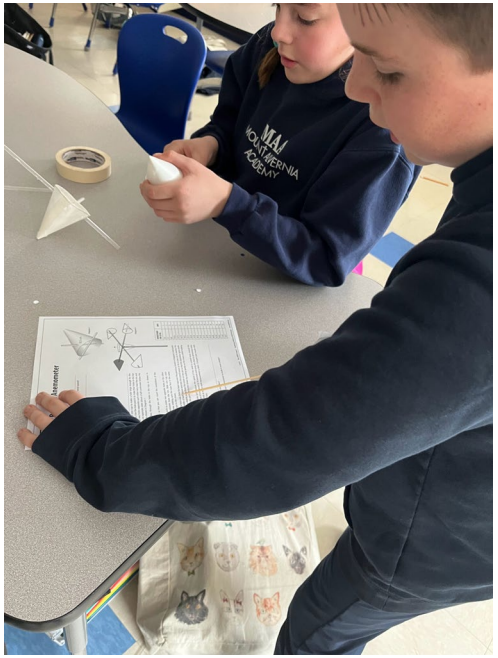
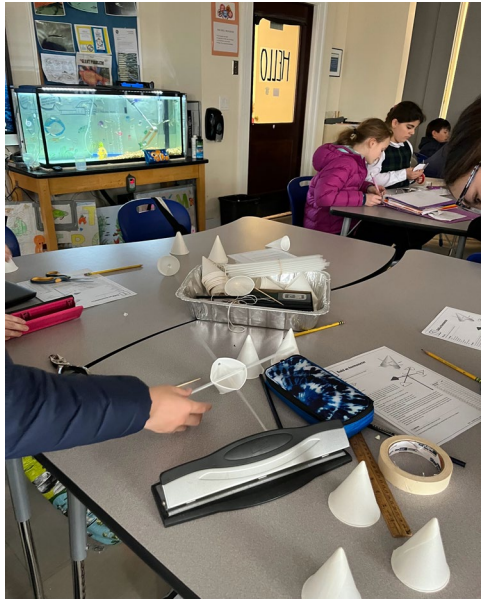


Here they are, hard at work!

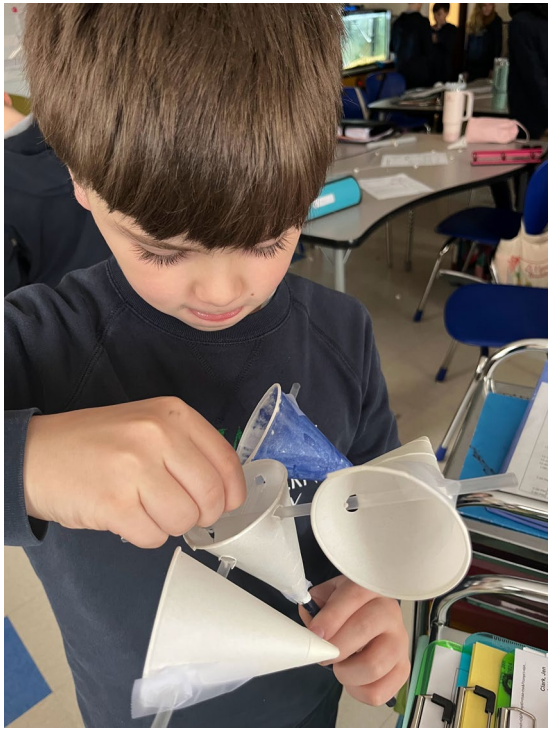
Students poured water onto their plants, and measured the distances that paper clips attached to the wheels of their plants traveled.

Now, our class understands how the flow of water can create energy!





Similarly, MAA students built and experimented with makeshift wind turbines…



Students built an anemometer with household materials that measured the speed of wind!

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We also learned about chemical energy by turning an apple into a battery!

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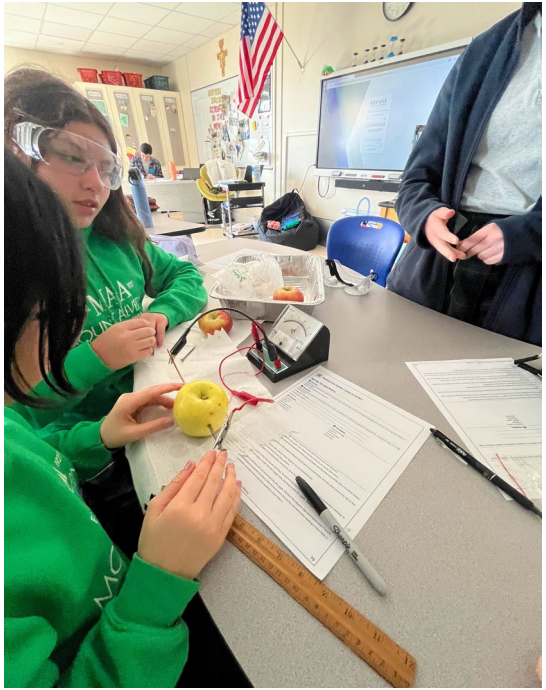
Students measured the electrical currents of nails inserted inside of an apple using a microammeter!



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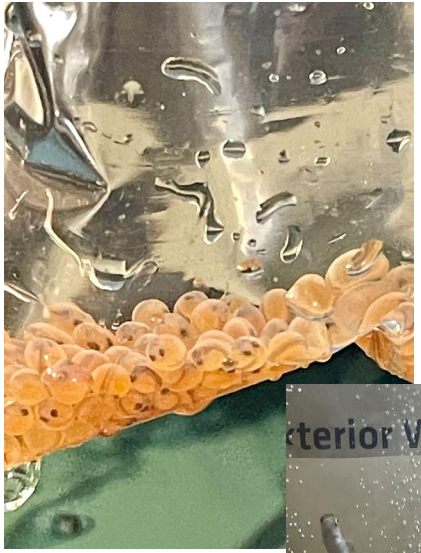

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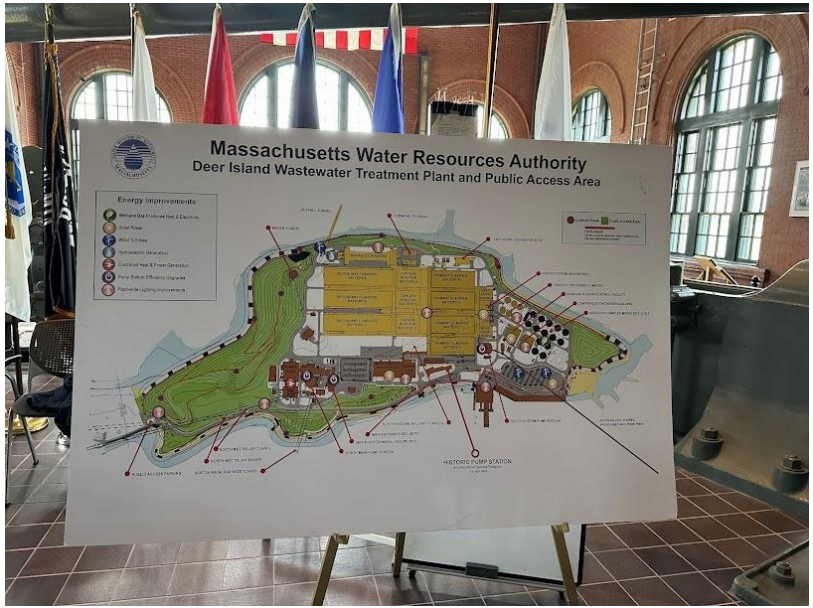

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