

Afton Elementary Project Energy

YOUNG

Environmentalist

PROGRAM

Afton Project Energy involves activities in the SPARK (STEM) Classroom, After school Activities in our Young Environmentalist Program, and participation of our school in District Events.

Classroom

All K-5 SPARK classes learn about the importance of energy from Mrs. Slota. We learn about forms of energy, energy sources, energy conservation and waste disposal. Each grade level learns different things:

K- Litter and 4 "R"s

1-Forms of Energy

2-Energy for Living Things

3- Solar Energy

4-Renewable and Nonrenewable;
Kinetic and Potential

5. Energy Conservation

After School

Our school has an after school program called YEP- Young Environmentalists. Program. The group meets every Thursday after school for an hour. They do activities, volunteer in classes and at events, clean up school grounds, teach other people about energy, fundraise, promote energy conservation and serve as ambassadors for our environment. Any student in 3rd, 4th or 5th grade can join. We have 3 adult advisors that help us plan projects that interest us.

District Events

Afton students and staff attend, present and volunteer at many district events. In August our Environmental Protectors Club shared our efforts to conserve energy and take care of the environment with our School Board. We share what we know about energy topics at STEM fairs at different elementary schools and at our high school. In March we had teams complete in a local K'Nex STEM Design Challenge competition

ENERGY ACTIVITIES in the classroom

5th grade teams built energy houses and then tested them to see which house would cool the to the lowest temperature.



4th grade students built marble runs to demonstrate kinetic and potential energy and forces.



2nd grade learned how animals get chemical energy from food and plants get radiant energy from the sun.



First graders learned about energy in glow sticks and how thermal energy can speed up the chemical reaction.





AFTON ASSEMBLIES GO GREEN



PROJECT ENERGY ASSEMBLY sponsored by PECO taught us that if we **SAVE a WATT**, we **SAVE A LOT**. We also learned more about why renewable energy is helpful to our environment. Students in K-5 saw the show.



BASH THE TRASH

ASSEMBLY sponsored by our PTO taught us that if we can reuse many materials for good reasons like making music to entertain people. If we reuse materials, we can save energy.

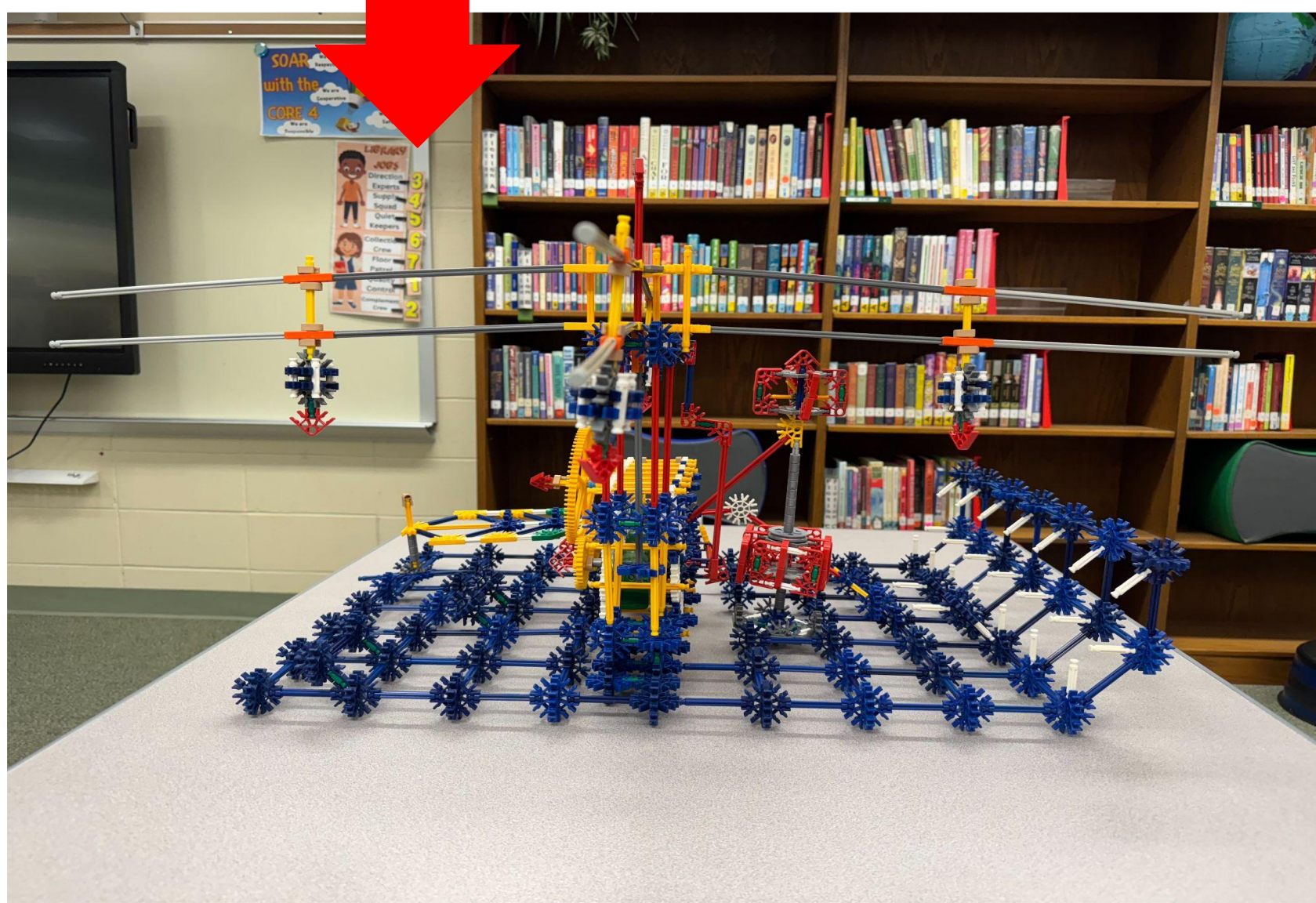


K'NEX Challenge with an Energy Theme

Teams of 4th and 5th grade students were given a chance to participate in a county STEM Challenge. Students needed to build a structure using K'nex that would help the environment. One team of 4th grade boys built a model of a hydropower plant and included features to help protect the fish from being harmed by the working dam. Students worked every day for a hour during lunch and recess for two months to prepare for the competition. They did research, designed and built their model, created Google Slides and presented their creation to younger classes in the school.

You can view the Slides Presentation by clicking the image of the model below.

You can watch the video presentation by clicking the image of the team



LITTER CLEANUP



Every year students at Afton help the environment by cleaning up litter outside our school. Kindergarten students especially love to help. We get donations of bags and gloves from Keep PA Beautiful. Our afterschool program even inventories how much trash and what types of trash we collect so we can report it to the state.

TERRACYCLE Recycle Project

Our school is collecting packages from common lunch snacks to send to Terracycle to get funds to support our animal fundraiser. We are putting less trash in the landfill by recycling packaging. We reused copy paper boxes to make collection boxes for Little Bites packages, Go Go Squeeze pouches and Honest Kids pouches that are in our school lobby and cafeteria. Our boxes are filling up quickly. We made signs for the hallways, a bulletin board for the lobby, afternoon announcements and visited classrooms to promote our collection.



YEP 2024-2025

YEP students serve as
ambassadors for the
environment.



These student
volunteers from 3rd, 4th
and 5th grade also serve
as our school 's GREEN
TEAM.



YEP-Young
Environmentalist
Program



Energy Gingerbread House Making



Getting the Oil Out
Team Challenge with
chocolate syrup and
Coke



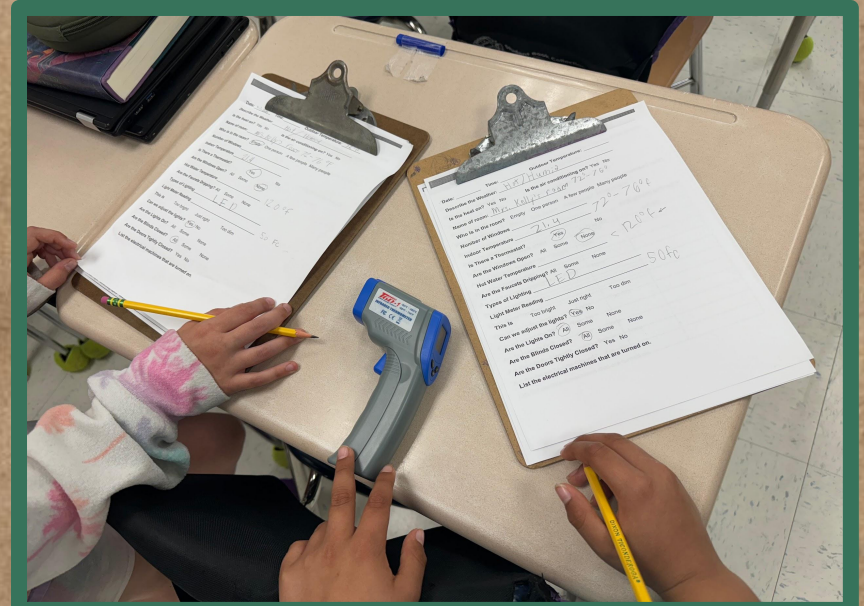
ENERGY activities in **our** afterschool program

Candy Collector
to learn about
the benefit of
using renewable
energy sources
instead of
nonrenewable



Energy Audits at Afton in 2024 and 2025

Afton Green Team Members in 3rd-5th grade collected data from classrooms in our school by measuring: *water temperature, air temperature, light levels, humidity, and electricity usage of devices while on and off.* We learned that hot water should be 120 degrees F and room temperature should be set at 68 degrees F. We also learned what light levels are best for different types of work spaces and that humidity levels should be between 15 and 50% depending on temperature. We also practiced using a kilowatt meter to measure usage of different devices. We got a behind the scenes tour of the boiler room too!



Restoration of our school garden with the help of PECO

PECO volunteers came to Afton last spring to work with students to restore our garden. We got to see the results in the late spring and early fall. We grew marigolds, herbs, tomatoes, strawberries, and more. We learned that plants use the radiant energy from the sun to undergo photosynthesis. We are planning to do more garden improvements and new planting when the weather is warmer this spring.

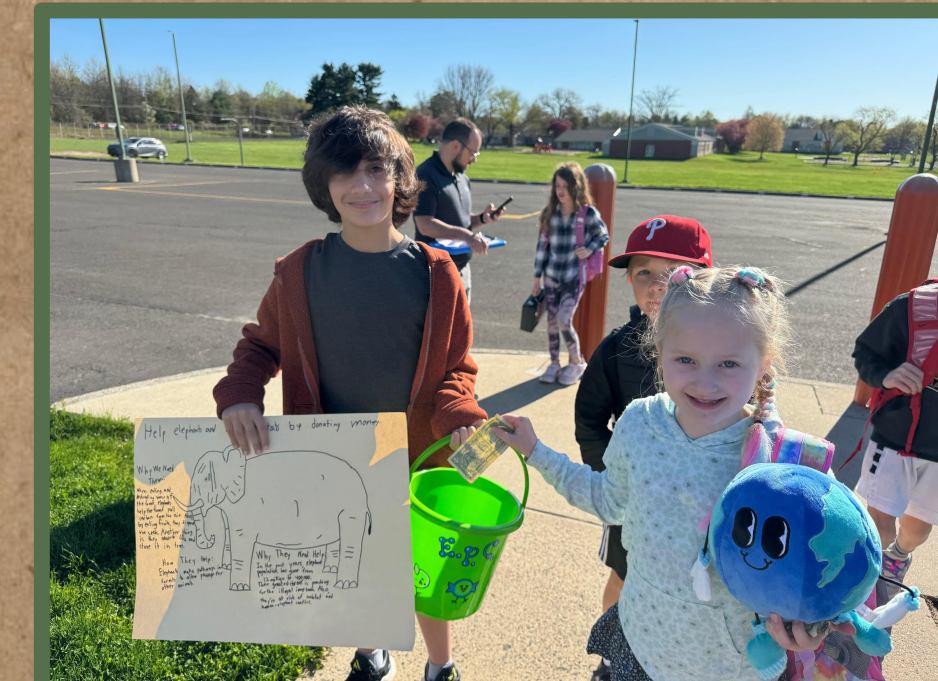




YEP Fundraising in 2024 and 2025

Each year Afton Green Team Members in 3rd-5th organize a fundraiser to raise money for an environmental cause.

The 2024 fundraiser was for tigers and elephants. The 2025 fundraiser is supporting seals and sea turtles that are being harmed by plastics getting into our waters. Students collect money during Earth Week to donate to WWF and Loggerhead Marine Life Center in Jupiter, Florida. Students collect donations during morning arrival at the car drop off and the bus dock, and at evening events. The goal is to raise \$500 each year. Students make flyers, slideshows, posters and bulletin boards to promote their fundraiser. Cleaning up trash and keeping water clean can help these animals.



ENERGY activities

at evening events



Ultraviolet bead bracelet making at Afton Elementary SPARK Showcase, Fallsington Elementary STEM Fair and Pennsbury School District STEM Expo to teach about energy from the sun. UV flashlights make it possible show the color change.





HOURS SPENT COMPLETING ENERGY ACTIVITIES

Activity	Hours
Classroom Activities Litter Clean Up, 4 “R”s Lessons, Forms of Energy, Energy for Living Things, Solar Energy, Renewable and Nonrenewable Sources, Energy Conservation	~200 hours
After School Activities Weekly Meetings and in-school sharing	~30 hours
District and Community Events Board Meetings STEM Fairs, Showcases and Expos	~20 hours



Thank You From the

Young

Environmentalist

Program