

# Afton Elementary



1. **SPARK** and **Science**  
Class Lessons

2. Environmental  
Protector's Club -  
**GREEN TEAM**

3. **Earth Day**  
Activities

Afton Elementary has 515 students in Kindergarten through 5th grade and is located in Yardley, PA. All students are learning about ways to protect our environment, save energy, and the different energy sources so that they can help support the mission of the Pennsbury School District's Sustainability Committee.

**Student Leaders:** Ben Revness, Avery Cumberland, Vivienne Gallagher, Pyper Reid, Lucy Schopfer, Jack Fitch, Purva Dhoke, Brynn McCusker, Hailey Powell, Molly Jones, Seraphina Fein, Elise Conlon, Hudson Chorney, Jaya Dave, Colton Ryan, Elle Wexler, Julia Perri, Luca Incontro, Daniel Hartman, Hailey Stanton, Kai-Li Pine, Raegan Shaffer, Kavya Khanna, Owen Austin, Caitlin Castner, Maddie Behme, Lexi Debow, Chase Geipel  
**Advisors:** Emily Kopchinski and Kristin Slota

**2022 - 2023**

# Energy Activities during SPARK and Science Class

- Renewable and Nonrenewable Energy Lessons-4th Grade
- Energy Round-Up- 4th Grade
- PA Resource Council Energy Sources Presentation- 4th Grade
- Energy Chants- 4th Grade
- Color-changing Chameleons- 2nd Grade
- UV Bracelets (Coming in late April)-1st Grade
- Solar Ovens and Balloon (Coming in May)- 2nd Grade
- Energy in Glow Sticks- 2nd Grade
- PECO Energy Endgame Assembly- K, 1st, 2nd, 3rd, 4th & 5th
- PA Resource Council Litter & Recycling Presentation- K & 1st
- Wastewater Treatment Plant Visit (Coming in May)- 5th
- Litter Cleanup- Kindergarten





# NEED Activities in SPARK Class





**Afton Environmental Protector's Club**  
(EPC) has been meeting every Tuesday after school since December 2022. Members are students in 3rd, 4th and 5th grade.

**MISSION:**

*Encourage responsible environmental behaviors, increase environmental awareness in our community and develop awareness of actions being taken in the community to protect the Earth*



# Environmental Protector's Club

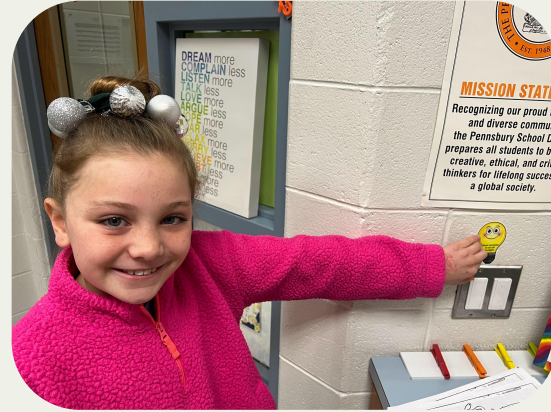
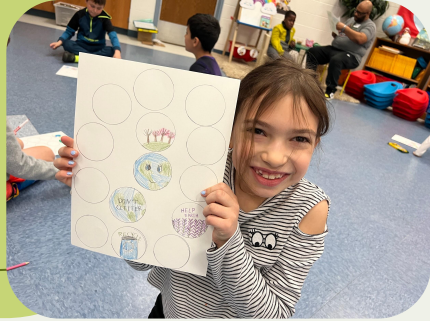
## ACTIVITIES:

**Over 600  
hours  
combined for  
28 members**

- Newsletter to Afton families in PTO Weblast
- Bulletin board creation to educate the students and staff
- Building Energy Audit with Todd Rogers in March
- Read a book with environmental themes to K, 1st and 2nd grade classes
- Attending Litter & Recycling Presentation by PA Resource Council
- School grounds litter clean up- Litter Free School Zone
- Making buttons with environmental messages to give to community
- World Wildlife Federation Fundraiser
- Labelling all recycling containers with signs to show what to recycle
- Hanging stickers near light switches to remind staff to turn off lights
- Request for donations of bottle caps, crocs and old tshirts for art projects
- Learning and sharing information about how to be proactive to protect/save the environment.



# EPC in Action



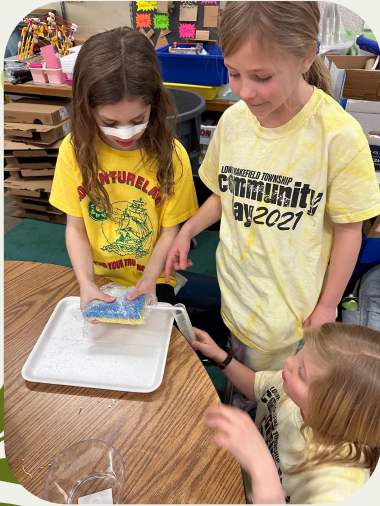
- Recycle sort game
- Earth Day math equations
- Student video
- P.E. relay race and exercises related to Earth Day
- Presenters
- Trash and recycling sort PE
- Animal Yoga EPC presenters
- Bottle race and





# NEED Activities in EPC

- Get the Oil Out
- Perforated Well Casing
- Energy Puzzles
- Energy Chants



# World Wildlife Federation Fundraiser

AFTON ELEMENTARY SCHOOL  
APRIL 24, 2023

## EARTH DAY FUNDRAISER

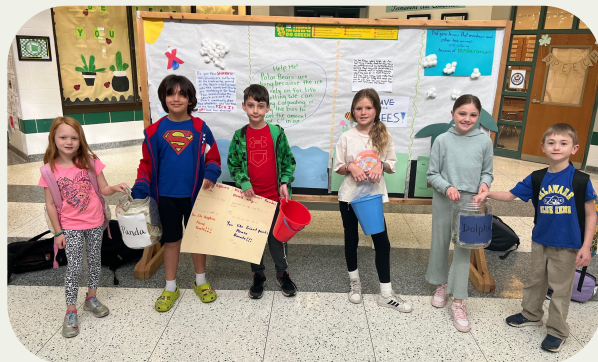
AFTON EPC MEMBERS WILL COLLECT MONEY DONATIONS DURING APRIL TO SUPPORT THE WORLD WILDLIFE FEDERATION. DONATIONS WILL BE MADE IN THE MORNING AT THE BUS DOCK, THE LOBBY, THE FRONT OFFICE, OR CAR DROP-OFF FOR THE GIANT PANDAS OR DOLPHINS.

WHO WILL WIN?  
**GIANT PANDA OR DOLPHINS**

LINK FOR ONLINE DONATIONS  
<http://wwf.worldwildlife.org/goto/Afton>



3rd and 4th Grade EPC members made posters to hang in the hallways to encourage classmates and staff to donate money to our fundraiser for the World Wildlife Federation. Students can choose to donate for the **Giant Panda** or the **Dolphin**. The goal is to raise \$1 per student and staff member. We hope to collect over \$600 during the week of Earth Day.





# AFTON is a LITTER FREE SCHOOL

Students in all 4 Kindergarten classes, the Environmental Protector's Club and Student Council help make Afton a Litter Free School by cleaning up litter outside our school.



## KINDER WASTE WARRIORS



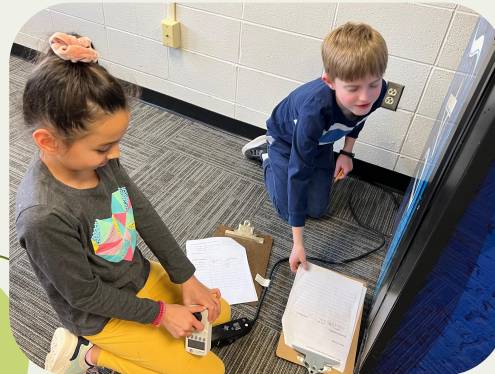


# ENERGY AUDIT

## with Certified Energy Manager

TODD ROGERS  
March 28, 2023

4th and 5th Grade EPC members and two school board members had an opportunity to take a closer look at the energy usage in our school. Students learned how to collect data about room temperatures, water temperature, light levels and kilowatt usage by electronic appliances.





# K'NEX STEM DESIGN

Student teams of 4th and 5th grade students designed a prototype of a device using only K'nex pieces to help solve an environmental problem. They worked during recess time and afterschool to prepare. They recorded their presentation in a video and then submitted it with their blueprint and journal for judging by the county.



*Offshore Wind Turbines with Bubble Curtain to Protect North Atlantic Whale*



One Afton team was selected as one of the finalist from over 200 teams entering. Sixteen teams competed in person at the Bucks County Fab Lab and were judged by local STEM experts. The team did an INCREDIBLE job, but unfortunately they did not qualify for the state competition.



# Creations made from **REUSED** or **REPURPOSED** materials for the 1st Annual **SPARK SHOWCASE**

**K:** Boats & Backscratchers; **1st:** Mini-golf; **2nd:** Biome Triaramas; **3rd:** Arcade Games  
**4th:** Marble Runs; **5th:** Ski and Snowboard Teams to ride the Afton Alps



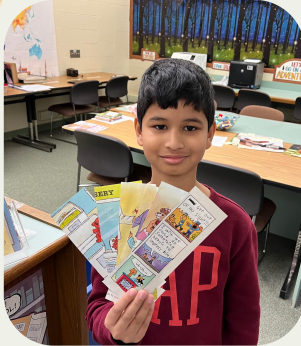
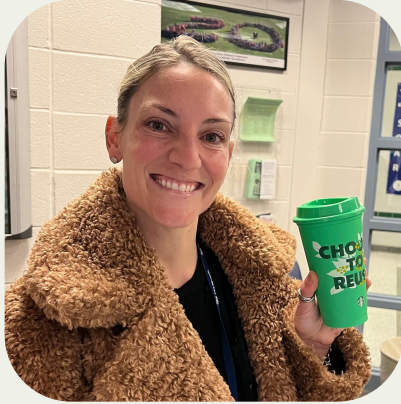


# Afton Students REUSE





# Afton Students and Staff REDUCE, REUSE, RECYCLE & REPAIR



# Hours Spent Completing Energy Activities in SPARK (STEM) or Science Class

SPARK LESSONS	HOURS per class
<b>Kindergarten</b> - Litter Clean Up, Earth Day Song, Building Back Scratchers and Boats from repurposed materials, Litter and Recycling Lesson	24 hours
<b>1st Grade</b> - Building Mini Golf from repurposed materials; Litter and Recycling Lesson; Earth Day Song	28 hours
<b>2nd Grade</b> - Energy Roles of Living Things, Radiant energy from Sun, Building Tri-aramas from repurposed materials <i>Coming Soon: UV Bracelets, Solar Toys, PV Cells, Solar Balloon and Solar Ovens, Reusing</i>	24 hours
<b>3rd Grade</b> - Building Arcade Games from repurposed materials <i>Coming Soon: Presentation from Bright Farms</i>	27 hours in class 20 hours EPC
<b>4th Grade</b> - Kinetic and Potential Energy, Building Marble Runs from repurposed materials, Renewable and Nonrenewable Energy Lessons, Energy Chants, <i>Coming Soon: Energy Round-Up, Tesla Presentation, Resource Lesson with the PA Resource Council; Skype with an Ecologist</i>	60 hours in class 20 hours EPC
<b>5th Grade</b> - Making Skiers and Snowboarders from repurposed materials; Earth Day Song <i>Coming Soon: Wastewater Presentation and Trip to the Wastewater Plant</i>	24 hours