

# BUILDING ENERGY

**LIPSCOMB ACADEMY ELEMENTARY SCHOOL**

4517 GRANNY WHITE PIKE, NASHVILLE, TENNESSEE 37204

2018-19 NEED Project: Primary Division

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# JOINER CREW...



Lipscomb Academy Lower School (LALS) Green Team is reconstructing itself as the LALS campus undergoes extensive expansion. Many of our team members “graduated” to the upper school recently, leaving only 5 “old” members. This crew recruited friends to join the team, almost doubling their number!

What they lack in numbers is more than made up for in enthusiasm as they tackle projects on campus. LALS is beginning a building project which will more than double the structures on campus, as well as the capacity for students. These additions will necessitate moving gardens and playgrounds. The team has jumped at the chance to help plan and develop these new areas. We are excited to join the vision for an improved Lipscomb Academy!

CREW: (front, left to right) Kalli Jones, Ezra Caputo, Jordynn Savage, (middle) Kendall Thorpe, Corinne Pearman (Junior Leader), Jesslyn Palmer, Kate Simpson (Junior Leader), (back) Ginger Reasonover (Sponsor), Jackson Savage (junior Leader), Eleanor Millimaki, Becky Collins (Sponsor)



LALS Green Team uses NEED curriculum as a framework for energy education. Each year the team studies ten sources of energy. We build education through experimenting and researching each one to gain proper footing. The team leads the student body in recycling efforts as an example of conservation and caring for the environment. The team shares expertise with classmates when developing service learning projects in each grade level. They also help sponsors construct presentations which are given to faculty, community events, state and national conferences.



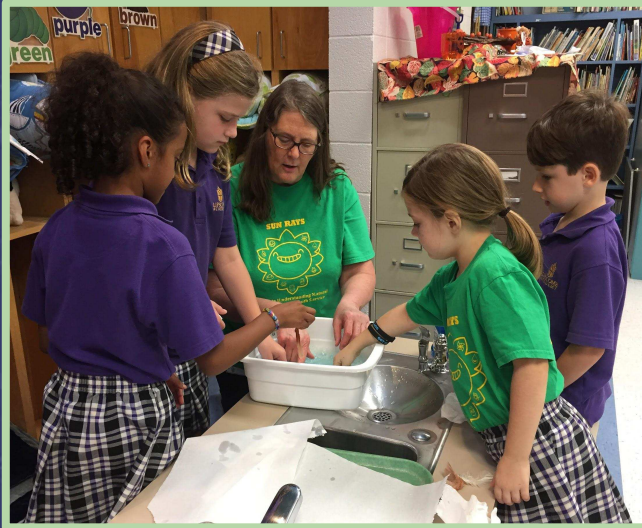
Green Team explored properties of flight as they experienced wind power. They constructed foam airplanes and experimented with weights to change flight patterns.

# GREEN TEAM FOUNDATION: ENERGY EDUCATION



(from top left, counter-clockwise)

- Imagining what one person can do with a good idea!
- Cleaning petroleum spills to preserve the environment.
- Water has power to move soil, debris, and pollutants.
- 'Cookie mining' to discover how coal mining works, as well as the cost of producing coal for electricity.



### SCAFFOLDING

- NEED curriculum guides
- PLT curriculum
- Teach Engineering curriculum
- Civil Air Patrol curriculum
- Nashville Electric Service educational resources
- Lipscomb University Institute for Sustainable Practice
- Google resources

# INSTALLATION OF KNOWLEDGE



Green Team members lead the way, as third-graders recycle e-waste from a community member and sort gently used clothing for Thriftsmart on AMERICA RECYCLES DAY.



Since the origination of environmental education at LALS, recycling has been the program cornerstone. Green Team Junior Leaders supported their third-grade classes in their annual AMERICA RECYCLES DAY drive. Despite the extreme cold and snow, all three classes stayed busy unloading household waste for proper disposal. GOOD SPORTS ALWAYS RECYCLE was the first environmental award LALS won years ago. 2018 marked the sixth recognition received. Team members were thrilled to represent LALS in accepting top honors. Award money will fund green team projects, and changes caused by expansion renovations.

Junior Leader, Kate Simpson, accepted an award for the Green Team during GOOD SPORTS ALWAYS RECYCLE ceremonies.



## 2018-19 Green Team Builds on Cornerstone of Program

# BLUEPRINT TRANSFORMATION: TEAM GOAL TO ASSIST

2018-19 is the beginning of a huge transformation for the Lipscomb Academy Lower School campus. During this school year, a new 2- and 3-year-old program was added to the SEED School (LA Pre-School, Pre-Kindergarten, and Kindergarten). This expansion created the need for more classroom spaces; therefore, in summer of 2018, a new wing was added to the existing school building. LALS faculty have dubbed it the “West Wing”.

With a \$20 million donation, in spring/summer 2019, ground will be broken on new structural expansion. This addition will attach to the south end of the current building and house a new media center, cafeteria, a new Special Needs program, and the return of 5th- and 6th-grades to the Lower School. This is a two-year project.

Green Team has committed to assist in maintaining the environmental integrity of the campus during this growth.



Three-year-olds loved finding pumpkins in the LALS courtyard, which had been transformed into a pumpkin patch. Two-year-olds filled their wagon, too, to pull back to their room for pumpkin projects.



# NEW LAYOUT FOR VEGETABLE GARDENS



The footprint of the new building will cover the old vegetable gardens. A new site was selected, which Green Team measured. They recommended number and arrangement of new garden boxes. These self-watering boxes will soon be installed with mulch and slate stepping stones making paths between.



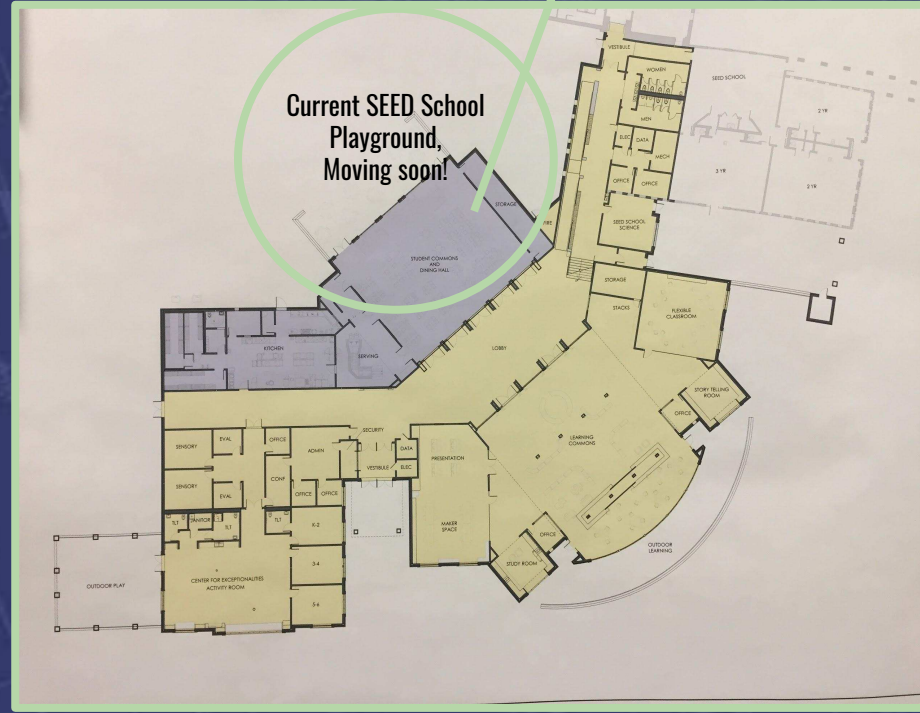
(Top Pictures) Two- and three-year-olds care for the current vegetable gardens. These are pictured on the left. Proposed new garden boxes are pictured on the right. (Bottom pictures) (Left) Green Team members measured the new area to determine box placement. (Right) On Volunteer Day, Lipscomb University students cleared the old gardens and shed for moving.







Green Team interviewed Dr. Susan Galbreath, Sr. Vice-President of University Strategy, who is Executive Leader of the building project. The team is eager to assist in the playground upgrade as it is moved from its current location. Ideas for the new space include creating a more natural-looking area with in-ground slide and hill climbing course. Students discussed a sand pit, jumping stumps, and adding plantings for a maze. Each one drew ideas for the project.

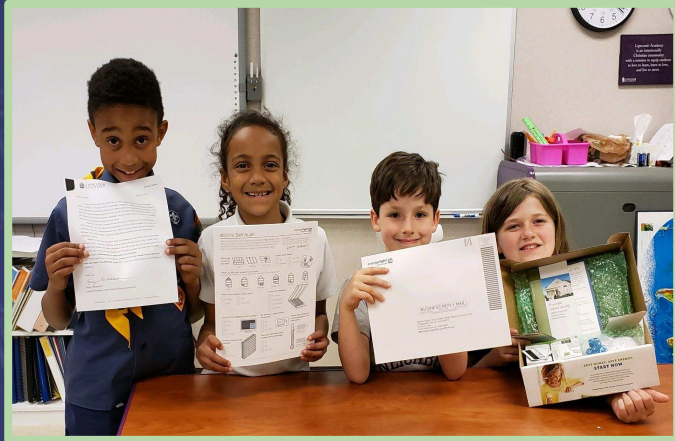


# GREEN TEAM PARTICIPATES IN NEW PLAYGROUND PROCESS



# GREEN TEAM INVESTIGATES SUSTAINABILITY OF “WEST WING”

(Top) The new ‘West Wing’ addition to LALS, completed in record time, summer, 2018.  
(Below) Green Team prepares Energy Audits for each LALS student to complete in their homes while the team completes an Energy Audit of the West Wing.



In order to accommodate the new Pre-School, the ‘West Wing’ was added in summer, 2018. With an additional 10,000 sq. ft, the wing provided 10 new classrooms and 3 restrooms; housing 3rd- and 4th-grades, Art, and Science Lab. LALS Green Team is currently conducting an energy audit of this facility. One great feature noted is the landscaping designed to retain heat/cooling in the space.

## WEST WING SPECS

- Auto-on/off lighting
- Low-flow toilets
- Touchless faucets
- Windows which can be opened
- Programmable thermostats
- Flood-prevention landscaping
- Noise-cancelling insulation between classrooms
- Weather-safe porte-cochere

# LEADERSHIP FRAMES PROGRAM

Recycling has long been the frame in which LALS Green Team is centered. This activity was our first environmental investigation and project. It continues to bear the load of financing Green Team endeavors. Through Pepsico recycling and other contests, the team earns prize money and gift cards from 'points'. These funds allow community building through reinvesting the money in food and clothing for local homeless friends, contributing to regional Wounded Warrior projects, and providing tools to build infrastructure in foreign countries. Recycling keeps our community clean, prevents pollution of the watershed, and educates students for future conservation. Green Team leads LALS student body by example in the cafeteria and by sponsoring contests and America Recycles Day.



## AMERICA RECYCLES DAY TALLIES:

- Thrift Smart-2500 lbs= \$250 in gift cards for gift cards for those in need.
- Tri-Star Recycling - 3691 Lbs 'no landfill' e-waste
- Shred-It- 3,000 lbs sensitive documents destroyed
- Metro Nashville Police Department-105 lbs. out-dated medications disposed of safely.
- Metro Waste-288 Fluorescent bulbs, 412 lbs spent batteries
- Pepsico-300 Lbs. (6025) plastic drink bottles 91 lbs (3185) aluminum cans
- Trex-45 lbs. Recyclable plastic wrap
- 200 lbs miscellaneous household waste
- \*\*\*\*\*
- 92 community cars contributing goods.
- 3 community members returned to bring hot drinks, food, cookies to frozen volunteers!
- 18 High School, University, and adult volunteers.

(Top) Green Team is ready to sort and weigh items from school-wide recycling contest. (Bottom) Students help unload e-waste recycled during America Recycles Day.



# Summertime Improvement

Lipscomb developed a partnership with Pepsico many years ago. Recycling, an important pillar for Lipscomb's environmental program, typically runs during the school year. Summer 2017, we were invited to pilot a new installation: summertime recycling!

So, after the notebooks were put away, Green Team continued to build momentum and capital by successfully *DOUBLING* our projected summer goal. This garnered recognition *AND* an invitation to participate in "official" summer recycling in 2018.

As campus summer improvements proceeded, members collected plastic bottles and aluminum cans from summer basketball camps, baseball games, and family events, adding to the concrete plan to succeed. When the dust had settled and the bottles tallied, LA had recycled over 422 pounds, the equivalent of 10,626 containers. This accomplishment lifted LALS to the "top ten summertime recyclers" in the nation. The payoff: \$1,000! Prize money is being donated to fund environmental projects in underserved countries.



Green team members have fun when they recycle, even when it is a messy job! They know they are helping in multiple ways: preventing pollution, teaching others to care for the earth, and earning funding to use as we 'pay it forward' with helpful projects across continents.

## CAPITAL:

-Pepsico Recycling	\$ 1,000
-Good Sports Always Recycle	\$1,500
-Collins, Reasonover speaker stipend- NAEYC state conf.	\$300
- LU Institute for Sustainable Practice	\$500

# Summer Extension

Green Team extended helping hands across the ocean to share energy resources and infrastructure upgrades. Summer recycling earnings were donated to LIVING WATER to purchase a solar panel which will operate the pump for a new well at the MADE IN THE STREETS (MITS) 'Mountain View' expansion. LIVING WATER digs donated wells across the world where potable water is scarce.

Mountain View is a new 'recreational camping site' for the street children who live at the MITS orphanage. These students have spent much of their lives abandoned and living on the streets of Nairobi, Kenya. MITS educates the youngsters and teaches job skills so that they can support themselves as adults and provide a better life for their future families.



(Left) Aerial view of Mountain View property at MITS with completed wall around compound. (Middle) Completed well which will use solar powered pump.



## CONTRACTORS:

- LIVING WATER:  
Jon Lee-LW Volunteer  
Administrator  
Kevin Colvett-LW Volunteer  
Administrator (pix far left)
- MADE IN THE STREETS:  
Brad Voss-MITS Executive  
Director
- Otter Creek Church: MITS  
Sponsor
- LALS Green Team: recycling  
for solar panel funding.



LALS Green Team has been recognized for their leadership during a local creek restoration. This year they branched out to tackle global water. Partnering with Healing Hands International (HHI), The team will co- sponsor a WALK FOR WATER event at our SEED School. HHI's theme, **It's All About the Drop**, inspired team members to focus on educating our youngest students (2-through 5-year- olds) about the importance of water and model service learning. Students will rotate stations: "how much water does it take?", groundwater investigations, the power of water and erosion, and the water cycle. Students will walk laps carrying jugs of water to simulate how children in other countries walk for water daily. They will also see how filters clean water from our creek for safe drinking. A \$500 check will be presented to HHI to fund an overseas well repair.

# EXPANSION TEAM REACHES OUT



(Left) Green Team members practice their demonstration of the power of water to erode soil.  
(Above) Green Team members sort jugs for 2 & 3-year olds to carry water during our walk for water.

# EDUCATE TO BUILD ENVIRONMENTALIST

Sharing knowledge and appreciation of nature is always a primary goal of Green Team. Members are constantly reminding classmates and family to recycle and leading class discussions of environmental issues. Team sponsors are often invited to speak at local events, state, and national conferences about outdoor education. Students help build these presentations by 'trying out' the experiments to be included in demonstrations.



(Above) Collins and Reasonover presented CLOUD GAZING... session at state TEEA conference. (Right) Collins, Reasonover, and Green Team members participated in a "Walk for Water" 5-mile walk, sponsored by a local church. This inspired a relationship between groups, leading to our own "Water Day" project at LALS.



## EDUCATIONAL BEAMS:

-TEEA presentation: CLOUD GAZING: IT'S NOT JUST GOOFING OFF

-NAAEE presentation: IF YOU GIVE A KID A NATURAL VIEW - A Lesson in Literature and Environmental Connections.

-Urban Gardening Festival: hosted a Monarch Butterfly Education Booth (sponsored by Davidson County, TN, Master Gardeners).

-Planning is underway for an LALS Professional Development Session: Early Childhood Literature and Science (August, 2019).

*-Ginger Reasonover is President Elect of Tennessee Environmental Education Association. (TEEA)*



# RECOGNITION IMPROVES CREDIBILITY



(Left) Green Team Sponsors accept TN Outstanding Environmental Stewardship Award at TEEA State Conference. (Right) Green Team was awarded Sustainability Steward Award in Good Sports Always Recycle state competition.

## PILLARS

### AGENCIES WHO SUPPORT GREEN TEAM:

- Tennessee Environmental Education Association (TEEA)
- Good Sports Always Recycle (GSAR)
- National Energy Education Project (need.org)
- Tennessee Department of Environmental Conservation (TDEC)
- Lipscomb University Institute for Sustainable Practice, Dr. Dodd Galbreath and students
- National Science Teachers Association (NSTA)
- Project Learning Tree (PLT)
- SENSOR
- Davidson County(TN) Master Gardeners
- Davidson County (TN) Extension Service
- Pepsico
- Metro Waste
- Thrift Smart
- Shred It
- Parent Volunteers



Lipscomb's Green Team is honored to have been recognized for excellence as we continue working toward renovation of the team AND the campus. The team is grateful for strong support!