

# **GRACE'S GUIDE** **to** **ENVIRONMENTAL** **EDUCATION.**

**AKA How to Start Your Own  
PROJECT "Mission Penguin"**

Learn how to spark a love for the environment in your community and how you can make a change. Use my tips and guide to start your own project in your community. No action is too small. The change you make today will spark the action of leaders tomorrow!

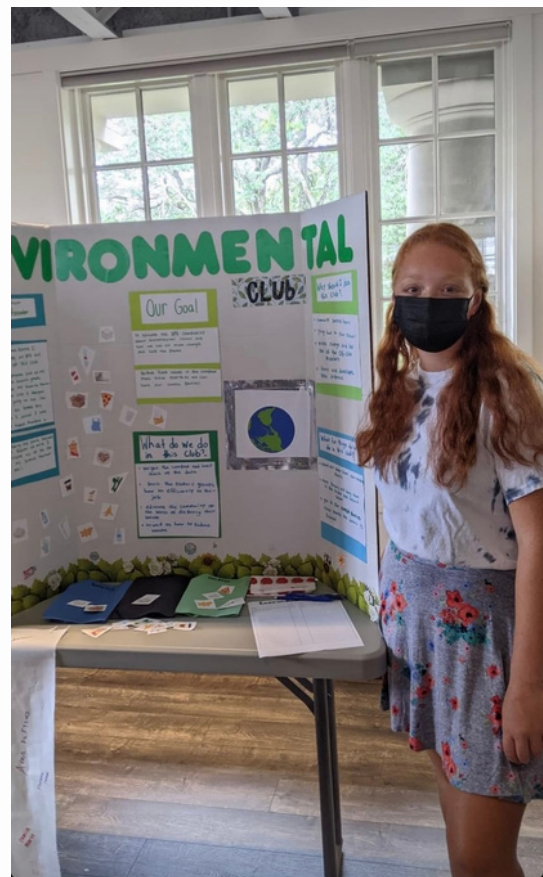
**By: Grace Ramos**

# About the Author

---

Grace Ramos is a Girl Scout Ambassador and Gold Award Recipient in Swampscott Troop 86303. She earned her award through her project “Mission Penguin” for her efforts in educating her community on waste contamination, waste reduction, and the ways of living a more environmentally conscious lifestyle. As of the 2022-2023 school year Grace is a Junior at The Academy at Penguin Hall (APH) in Wenham MA. “Mission Penguin” is a project Grace brought to her school when its compost was rejected in April 2021 due to improper waste disposal. Throughout Grace’s Project, she created a year-long program where she founded her school's Environmental Club, brought back her school's Rookery program, updated the student handbook, and provided resources to help guide and educate the school community.

Grace has been a Girl Scout since 2nd grade. Her love for the environment started at a young age when she joined the recycling club at her elementary school in 4th grade. Grace decided to continue her commitment to the environment when she started at Swampscott Middle School. She joined the Recycling Club where she developed fond memories of going around the school every Wednesday with her friends and collecting all the teachers' recycling. “I did this every week, year after year throughout all four years of middle school. At first, it didn’t really click for me the impact I was making because I didn’t think very deeply about where waste goes to be disposed of. That all changed when I joined the Recycling Club in middle school” Grace said. In 7th grade, Grace joined the middle school's new compost club. This is where Grace’s seventh-grade teacher taught Grace the basics of everything she is now teaching today. Grace got the chance to teach others and become a leader and educator in her school and town community. She said, “We had meetings every week. We put black, green, and blue trays in the lunchroom to teach students how to sort their waste between the bins. I presented to my town government as a student representative to demonstrate that students not only want change, but can be part of it.”



# How My Project Started

---

When I was looking at The Academy at Penguin Hall for high school one of the things that stuck out to me was the fact that APH uses ceramic plates and silverware at lunch, as well as composts the napkins and food scraps. I thought this was very impressive and it was something I still really admire about the school. When I joined the APH community, I very quickly immersed myself in the amazing community, and wonderful opportunities and learning. In the spring of 2021 and the end of my freshman year, I noticed something very wrong with the school's compost. The compost was severely contaminated with chip bags, plastic coffee cups, and anything that did not belong. That's when the president of APH announced that the compost had been rejected by the compost company, Black Earth. I knew that this was my moment and I had to do something to help. I mustered up the courage to write an email to the president and ask if I could lead in fixing the school's compost issue.

My project started in April of 2021. Not long after its start, I was informed the school Rookery program was starting back up again in the fall. Going into the 2021-2022 school year I knew I couldn't educate a whole school by myself and decided that I needed a small group of students to help educate alongside me. I founded my school's first Environmental Club. I worked with the club coordinator and biology teacher to plan the rookery schedule and club plans for the upcoming school year. Once the plans were in place I started educating. I presented to each grade how to sort their waste in the trash, recycling, and compost bins. I started my club trying to create an educational but fun place for everyone both in the Environmental Club and the school community. As a club, we created educational activities such as the 5-items challenge, water PH testing, farm trip, and pumpkin picking. We presented reminders to the school community, as well as findings in our data from weighing the compost. We started tracking the weight of our compost every day with the goal of getting the weight down from what was 25+ pounds of waste per day at the beginning of the 2021- 2022 school year, down to what ended up being not even 15 pounds per day at the end of the year. I created an updated section in the Student handbook about the waste values at APH, as well as provided resources so every person can do those little actions that make a big difference. The "Mission Penguin" project was an 18-month-long endeavor that spanned through my freshman, sophomore, and junior year.

# TIMELINE "Mission Penguin"

March/April  
2021

- My school's compost is rejected
- I reached out to my school's president to see if I can start a community project to help our compost.

May/June

- Numerous meetings with the president to talk over our plan for the next school year

July/August

- Preparing materials for next school years club and rookery program.

September

- Launching the Environmental Club and Rookery program.
- Environmental Club bonding trip to the pumpkin patch to learn about farming.
- Environmental Club hosted pumpkin painting event.

October

- Creating educational posters about how much waste APH is creating.
- Advertising around the school about the cookie party we hope to earn by the end of the first semester.
- Sharing educational Resources

November

- Started a new section at my school's news anchor-style morning meeting.
- "Your Daily Environmental Fun Fact" News Section

December

- Environmental Club shared holiday-themed "Your Daily Environmental Fun Fact" at Good Morning APH. Also learned about the effect water has on the environment through educational documentaries.

January 2022

- Environmental Club created a BuzzFeed quiz to share with the school to test how environmentally aware you are.

February/  
March

- Environmental Club PH water taste testing education.
- Continued education about reducing food waste at APH.
- School-wide 5 Items Challenge

April/May

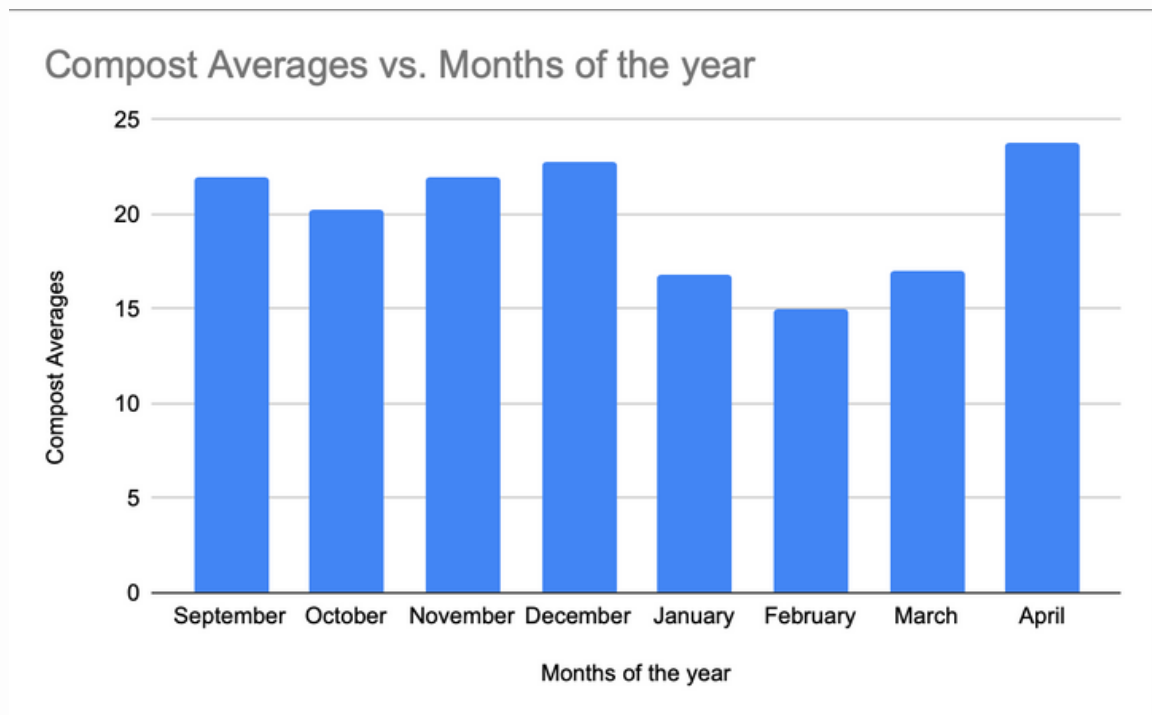
- Environmental Club Beach clean-up trip and education day.
- End of the year final Presentation to wrap up the school's learning and progress.



# "Mission Penguin"

- Founded the Environmental Club
- Re-established school's Rookery program
- Updated APH Student Handbook
- Create Resources and Games

## APH COMPOST



For a community of 200 people, my school was creating an average of about 20 pounds of compost each day at the start of the 2021-2022 school year. With the rookery program returning for the 2021-2022 school year I had my school start weighing the compost. Each month we faced new challenges but by the end of the year, the APH community had a much greater understanding of the amount of food waste we were creating as a community.

# My Frequently Asked Questions And My Response

---

How did your project get its name?

The name started with something I was temporarily using one day when I was referring to my Project. My school is The Academy at Penguin Hall so I knew penguin should be in the name. I definitely was determined and on a mission to make change, so stick those two things together and the name was created! Everyone started referring to my project as "Mission Penguin" and so it stuck.

How many months did your project span?

My project spanned about 18 months from March 2021- September 2022.

How many hours did your project

take?  
In the end, I spent 100+ hours on my Gold Award project alone. With additional environmental work that didn't go toward my project an additional 50+ hours would be added.

What did your Environmental Club plan/do?

The Environmental Club is the club I founded and continue to lead at APH. We plan fun activities such as pumpkin picking, pumpkin painting, water PH testing, watching environmental documentaries, the 5 Items challenge, beach clean-ups, and rock painting.

What is your project trying to teach?

My project's goal is to educate about waste sorting, waste reduction, and the ways of living a more environmentally conscious lifestyle. This was done through my educational resources and games as well as the weighing of my school's compost.

# Environmental Club

---

## What is the Environmental Club?

**The environmental club is a group of students that have a deep appreciation for the environment. Our main focus of the club is to educate the APH community, and everyone we meet about how to live a more sustainable lifestyle. But it's not all serious we go on fun adventures along the way.**

## OUR MISSION

---

**The mission of the Environmental Club is to teach and spread awareness about how to live a more environmentally conscious life. We teach how to sort one's waste as cleanly as possible. This past year we had a mission to reduce the weight of the compost each month with an end goal of reducing the compost each month from the one before. The goal for the club will change year to year with the learning growth of the school.**

## Club Activities

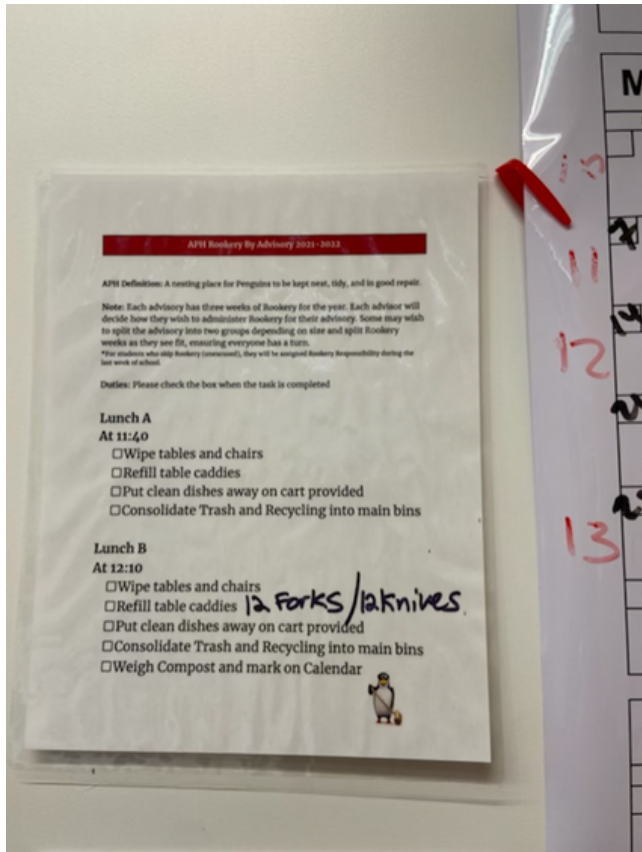
---

- Pumpkin Picking
- Painting Our Pumpkins
- Watching documentaries
- Water Taste Testing and PH Testing
- 5 Items Challenge
- Creating humorous but educational buzzfeed quizzes
- Creating posters to reduce the compost weight and spread awareness
- Beach Clean-Up and Ice Cream Trip
- Rock painting

**We hope to do many more activities such as growing our own herb garden, going sledding, painting reusable water bottles, making rope-woven tote bags, etc.**

# Club & Project Photos

## Rookery



**Weighing the Compost**

**Reduce Compost Weight by 20% in Month of October!**

**Take what you want, want what you take!**

Every month that the compost reduces in weight we are one step closer to the **COOKIE PARTY!**

(Cookie party held at end of Semester)



Why is it important to reduce food waste?

Because 40% of food in the U.S. is thrown out each year.

Reduce, reuse, recycle!

**-Environmental Club**





# Club & Project Photos



**5 Items Challenge**

What is the 5 Items Challenge?

Create something new with 5 random things that would have otherwise been thrown out.



**Water Taste & PH Testing**



**Trip to Connors Farm**



# My Environmental Resources

## Waste Sorting

What are the names of these bins?



Recycling Bin



Trash Bin



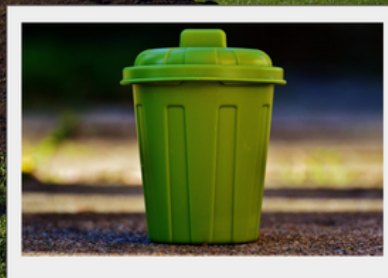
Compost Bin

## Compost

What is composting?

Composting is a process that involves the decomposing and breaking down of natural and organic matter such as food.

Compost is the organic material that is the result of composting.



## What can I compost?

You can compost anything that came from the Earth.

Including:

- All food
- Bones from meat
- Natural Paper Products like paper plates
- Wax and wax paper
- Natural wood like toothpicks
- Utensils clearly marked Compostable



## Recycling

### What is recycling?

Recycling is the process of taking a product and rejuvenating it to create something new.

For example when you recycle a water bottle it is cleaned and melted down to create a new plastic product.



# What can I recycle?

**Paper products such as sheets of paper, paper cups and cardboard boxes.**

**Soda / Aluminum Cans**

**Tinfoil**

**Glass Bottles**

**Product with recycling symbol!**

**All items should be free of unrecyclable materials such as food, plastic wrapping, and tape!**

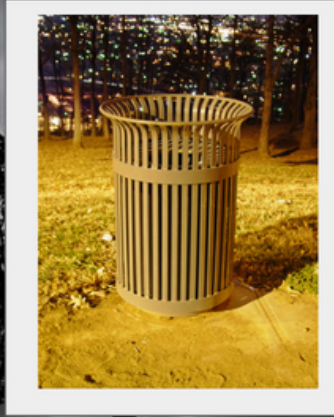


The recycling Symbol!



# Trash

What is trash?



My answer:

Trash is anything that can not be disposed of any other way. Trash goes to the landfill and sometimes never decomposes.

What should I put in the trash?

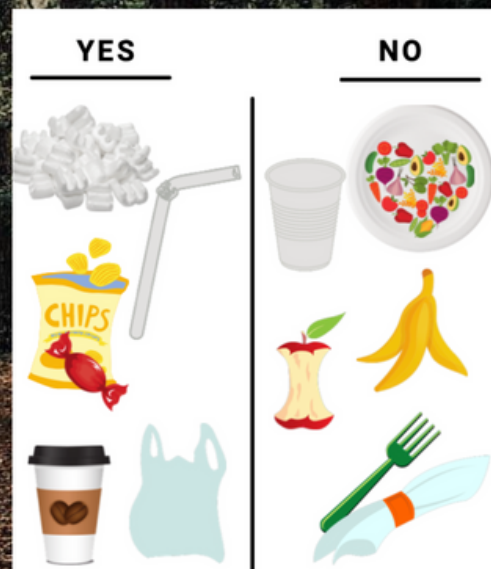
Styrofoam

Chip Bags

Plastic Straws

Plastic Bags

Anything that can't be Composted or Recycled!



# Grace's Waste Sorting Game



Compost  
(Green Paper)



Recycling  
(Blue Paper)



Trash  
(Black Paper)

Print and cut out waste items and sort them by placing on the correct sheet of paper

---



# GRACE'S SUGGESTIONS FOR STARTING YOUR OWN WASTE PROJECT

---

- If you are weighing waste make sure you have a scale where you can set it to account for the bin's weight. This will help you get the actual weight of the compost. (For example: mine was set to -7lbs when there was no weight on it)
- If there is a day when the compost is extremely heavy think about why. My school's compost would be extra heavy on rib day for lunch. These are great observations to mark down.
- Try to teach "take what you want, but want what you take". Your eyes can overestimate how much you can eat, and all the leftover food ends up in the compost. When you are allowed to go back for seconds, you should start slow and get more food if you are still hungry.
- Get your community involved by having the members be in charge of various tasks, such as weighing the compost and marking it down. This keeps the members of the community engaged and open to learning through first-hand experience.
- Create an incentive for getting the weight of compost down. My school's incentive was having a cookie party at the end of the first semester.
- Be flexible! It can be tedious and difficult trying to address issues that root from climate change and global warming.
- Track everything, and mean EVERYTHING! The weight of the compost on a certain day, what was in the compost that day, what is contaminating the bin, to how the community is reacting to your project, and various ways of educating.

**Thank You for Reading  
Grace's Guide to  
Environmental Education.**

*Grace Ramos*