Derby, CT | Thursday, March 8, 2024 | Vol. II Issue IV |

derbyraiderpress.org

# Can DHS waste less waste? The Raider Press investigates our school recycling program

By The Raider Press Staff

Given global concerns about climate change and the catastrophic effects it may have, The Raider Press conducted an investigation into how environmentally friendly Derby High School is. The Raider Press staff paid special attention to recycling and waste disposal since that is something students and staff contribute to directly every single day. We discovered consistently good intentions to be green, but we also uncovered a pattern of miscommunication and lack of education around recycling and waste disposal; while these patterns mean that the DHS community has not been as environmentally responsible as we could be, the good news is that these patterns can be easily corrected with accurate information. With more accurate information, DHS students and staff can follow-through on their good intentions.

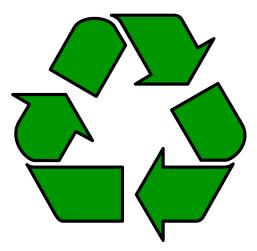


Image from Wikipedia: How can DHS become more environmentally friendly?

# What is the history of recycling?

Recycling has been around for centuries. The first ever record of recycling was the use of recycled paper in Japan in the 9th century; later on in the 12th century, the emperor's wife recycled the poems and letters that she received from her late husband. She even inscribed a sutra on the recycled paper to honor his memory, as stated in an article by the metal company GLE. Recycling goes back even further, though, all the way to 400 B.C. when the Byzantines were recycling glass.

The history of recycling in the United States was first shaped around wars and the need for resources. During the Revolutionary War, the colonists were very resourceful and recycled a lot of material that was needed and was in short supply. It is even rumored that during the famous ride by American silversmith and engraver, Paul Revere, his horse wore shoes that were made from recycled metal. During the second World War, Americans saved and reused even the smallest scraps of metal to conserve resources needed for the war effort.

Modern-day recycling in the U.S. has done a lot to reduce filling landfills with usable material. This was done with the help of Earth Day and the environmental movement in the 1960s, which brought lots of attention to the matter.

Recycled materials are used in several different ways, like being reused again for new things like toilet paper, newspaper, paper towel rolls, magazines, and telephone books (which helps keep the planet more healthy), keeping the environment more clean, saving more animals, and improving our economy.

# Why should we recycle at DHS?

Public schools are required to recycle by state law because according to the U.S. Environmental Protection Agency (EPA) "Recycling conserves natural resources, strengthens our economy, and creates jobs."

The first positive impacts recycling can have are economic ones. For example, recycling has brought in around 500,000 jobs for people in sanitation services and other

industries. It also helps maintain the prices of millions of items that we use in our daily lives. As stated by the EPA, "The EPA released significant findings on the economic benefits of the recycling industry with an update to the National Recycling Economic Information (REI) Study in 2020. This study analyzes the number of jobs,

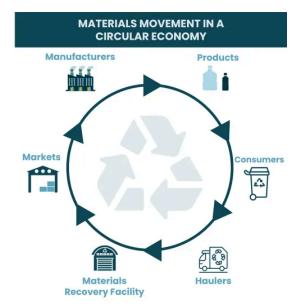


Image from of ambr-recyclers.org: Nowadays, recycled material is taken to specialized facilities that repurpose it into new, useful material.

### The Raider Press Derby

r Press Derby High School | 75 Chatfield Street, Derby, CT 06511

Faculty Advisors | Mrs. Cara Rice and Mrs. Jessie Yanes

**2023-2024 Staff Writers and Photographers |** Gianna Akter, Kaelyn DiMartino, Jaylynn Donaldson, Kristian Fearon, Horatio Glover, Xariyah Mitchell, Aeriana Smith, Krystal Torres, Vincent Trinh, Madeline Zavala

The Raider Press is the student newspaper of Derby High School. Most articles published in The Raider Press are written by students in Journalism classes. The Journalism students are also responsible for the newspaper's layout, editorial policy, and content decisions.

"Our primary goal as The Raider Press is to inform students and teachers about relevant events and activities that go on here at Derby High School. We will inform students and faculty by highlighting and acknowledging their accomplishments, getting diverse perspectives, improving communication, and bringing awareness to issues that happen at the school." — The Raider Press Staff

The Raider Press is a forum for free speech at Derby High School. Editorials represent the opinions of the writer and not those of the newspaper or the school.

Submissions | The Raider Press encourages the school community to respond to published content in the form of letters to the editor. Letters to the editor may be sent to The Raider Press faculty advisors from anyone in the school community. Letters must be signed and do not necessarily represent the views of The Raider Press or Derby High School. The Raider Press reserves the right to edit letters for length.

The Raider Press also encourages the school community to submit their creative writing and artwork for publication. Documents with creative writing and photos of artwork may be sent to The Raider Press faculty advisors from anyone in the school community. Submissions must include the name of the creator and do not necessarily represent the views of The Raider Press or Derby High School.

The Raider Press faculty advisors can be reached by email at crice@derbyps.org or jyanes@derbyps.org wages, and tax revenues attributed to recycling." Just from recycling, Americans benefit from 681,000 jobs, \$37.8 billion in wages, and \$5.5 billion in tax revenues. Imagine how much more could be earned and saved if we recycled more.

With this in mind, it is important to educate students about how to properly dispose of their waste not only to help the environment now, but because it is essential to our future. Scientists say that we are entering an era of "global boiling," a phrase used to describe the severity of climate change. Recycling is one way to mitigate the coming crisis.

What's more, waste disposal affects many different kinds of communities and ecosystems. According to Housing Matters, a housing non-profit, one in six Americans reside within three miles of a toxic waste site, and most do not realize

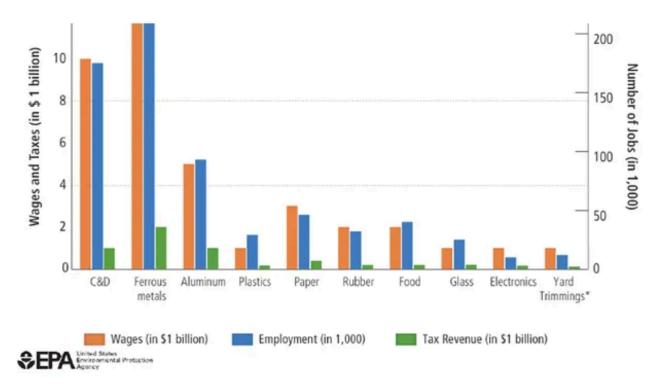


Image from Waste360.com: The EPA's data on the economic benefits of recycling.

the health hazards in their neighborhood. Due to the prices of housing, low-income people of color such as Black, Hispanic, and Indigenous people often live near these toxic waste sites. Children living in these areas are

more sensitive to diseases, face shortened life spans, and are at risk of the effects of these sites. Recycling can help reduce toxic waste to benefit these marginalized communities.

Not only does improper waste disposal endanger people's health, but also the environment such as land, water, and air. It contaminates soil, pollutes waterways, and damages ecosystems. This causes the death of animals and plants, loss of habitat, and a decline in biodiversity. Marine life especially suffers from ingesting plastic and other foreign matter. If we learn to dispose of waste in the right way, we can help reduce these problems; there is no denying the importance of recycling, even if some believe it does not make a difference.



Image from National Geographic: Polluted areas could be significantly less dangerous to residents' health if everyone disposed of waste properly.

# How is DHS *supposed* to recycle?

To do our part for the environment, DHS has a single-stream dumpster that we use to recycle. The city of Derby and its schools all run on this single-stream recycling plan.

According to the Container Recycling Institute, "Single-stream recycling is a system in which all recyclables, including newspaper, cardboard, plastic, aluminum, junk mail, etc., are placed in a single bin or cart for recycling." All of the district's recyclable material goes through the single-stream pipeline and then is separated out in a specialized facility. Using this single-stream system, the custodial staff members contribute

to good waste disposal practices at school. They support recycling and want to do it well. They have professional incentive to do so, too: if the custodians were to mix in the trash with recycling, then the company to which the trash gets sent (Win Waste) would send out a letter to the school.

DHS custodians support recycling whole-heartedly beyond simply fulfilling their professional duties, though. Jim Hoffman, head of facilities for Derby Public Schools, explained his point of view that not only is



Image from Win Waste Innovations: This is the garbage and recycling program the city uses.

recycling good for the environment: it is educational for students so that they know how to dispose of their waste responsibly when they enter the real world after high school.

Support for recycling extends to DPS cafeterias, too. Salvatore Giannotti, Food Service Director for Derby Public Schools, says that he supports recycling and thinks it is a good thing. He says that cafeteria staff recycle all that they can. Kitchen staff have bins dedicated to cardboard recycling, which is a big source

of the cafeteria's waste since food is shipped to them in cardboard boxes. So, while student materials like trays and utensils are not recyclable, the cafeteria team does recycle what they can. Because of some of these efforts from people like kitchen staff, there are ways in which DHS is environmentally friendly.

Other Derby Public Schools have the same kind of process we do. Every classroom has a recycling bin plus the bins in the cafeteria and gym that are just made for cans and bottles. Everyone is supposed to take advantage of these, but unfortunately, that does not happen.



Photo from derbypride.org: Head of Facilities, Jim Hoffman, supports recycling but also acknowledges waste disposal shortcomings at DHS.



Photo from derbypride.org: Food Service Director for DPS, Salvatore Giannotti, expresses support for recycling in the DHS cafeteria.

# What is actually happening? Good intentions but poor execution

Derby Public Schools' personal history with recycling has been shaky for the most part. All four of Derby's schools recycle, however, most of it is just large cardboard boxes since so much trash gets mixed in with recycled waste. If non-recyclable waste is mixed with the recycled material (like food, for example), it becomes automatically "contaminated" and gets thrown out with the trash: when there is non-recyclable waste in recycling bins, none of it can be recycled at all. This drastically reduces the amount of recyclable material that actually gets

recycled at DHS.

In the past, the cafeteria crew and the custodians tried to recycle student-generated waste, but the same issue recurred with students mixing trash and recycling. It became a mess and was "impossible to clean and sort" according to Giannotti.

Hoffman and Tony Mazan, DHS custodian, both agreed that it is hard for custodial staff to maintain good recycling practices because once one non-recyclable item





Photos by Jessie Yanes: DHS has recycling bins that are clearly marked, but students do not use them properly. An up-close image of waste in one of the cafeteria recycling bins reveals non-recyclable materials mixed in, like banana peels. Because of this contamination, none of this material can be recycled.

goes into the recycling bins, it is considered contaminated and has to be mixed in with the regular trash. Mazan remarked that he thinks things have gotten worse since the return to fully in-person learning after the pandemic. He said, "In the last two years, it got worse. After a couple of weeks, people were just like, 'Stop, not doing this.'"

Hoffman said "it's frustrating" to custodians when waste is not disposed of properly. It creates more work for them, and increases our carbon footprint. Carbon footprint, defined by The Nature Conservancy, is the total amount of greenhouse gases (including carbon dioxide and methane) that are generated by human actions. "Our district tries to be green, and our carbon footprint is monitored. The carbon footprint is calculated by electrical use, natural gas use, and waste. The state keeps track of our waste, the tonnage, and our chemical cleaners go into it too," Hoffman stated.

Hoffman says that around "60 percent of our recycling ends up in the trash because it's contaminated." Similarly, custodial staff disclose that the recycling bins always have trash mixed into them, meaning that the recyclables cannot be separated and thus end up being tossed along with the general waste.

Hoffman explains that there's a long history of not properly disposing of waste at DHS. Mazan states, "Look what happens in the cafeteria: we have the recycling bins with the holes, but when you open it up,

there's everything in there." Based on student waste disposal practices that the custodians observe, lots of students think all trash is the same; they do not realize that their waste practices can be damaging.

Due to the contamination in the recycling bins in classrooms, custodians actually removed recycling bins from them altogether. Hoffman expresses, "I wish we could sort through more of [the contaminated recycled waste], but at night the [custodians] do not have time to sort through." Essentially, custodians rely on students to throw the right stuff into the correct bins.

Hoffman said that DHS is not the only school that struggles to recycle well: "The middle school is pretty hit-or-miss. Eighth grade is good... sixth grade? They're putting everything in the trash." He added that DHS is actually better at recycling than the elementary schools.

Despite the fact that DHS students do better than some schools when it comes to recycling, we all need to be more aware because all waste is not the same. Hoffman further explains by stating, "As long as there's no trash in the bin, it goes into a bag making it look like trash, but it goes into the single-stream [recycling dumpster]. As long as it's separated and clean, it will go into the recycling single-stream dumpster."

Although the lack of education among people at DHS regarding the recycling system contributes to the environmental unfriendliness of DHS, students express that they want to implement more recycling and make DHS more environmentally friendly. This is prominently seen in the student responses to our school-wide survey, which showed that 85 percent of respondents express that they endorse recycling in addition to 81 percent of respondents agreeing that DHS should become a more environmentally friendly place. However, despite the interest, the fact that custodians see so much contamination in recycling bins suggests that students are not seeing their intention through to action. Students want to do better, but are perhaps misinformed about where all their trash actually goes and unaware that everything gets mixed together when recycling is not performed properly.

As one example of a student with good intentions to recycle, Quintin Simjouw '25, a student at DHS studying AP Environmental Science, explained that bad waste disposal practices affect our environment. He said, "Not enough sanitary landfills [leads to] toxic materials in the air which is killing us and destroying our population." According to Simjouw, we do not have enough sanitary landfills, so toxic materials enter Earth's atmosphere and harm us. When DHS contributes more to landfills, we contribute to this problem.

# Why does DHS struggle to recycle properly? Lack of education for students and miscommunication among staff

Most know about putting recycled waste in recycling bins, but knowledge about which materials can be recycled is spotty, and only a few DHS classrooms actually had recycling bins until recently. Custodial staff removed most recycling bins because of improper use, and teachers that did still have them in their rooms did not believe they were being used for recycling at all.

A few weeks ago, custodial staff placed recycling bins in classrooms that did not have one. Teachers were surprised to find the recycling bins in each room all of a sudden; many teachers were under the impression that trash and recycling were all mixed together, so when custodial staff made sure each room had a recycling bin, some teachers were confused. Confusion persists; even though all rooms have recycling bins now, no additional education or guidance about how to recycle properly was provided to staff or students.

The lack of awareness about recycling is a major barrier that blocks the school from having a successful program. The fact that students do not dispose of recycled material in the right place suggests a lack of knowledge of how to do so; in general, a lot of students and teachers are not aware of the recycling do's and

don'ts in the building. "People don't know what exactly to recycle. For example, I know you can recycle normal paper but not color paper, which can be an issue or sometimes with certain plastics not being sure what numbers can go where," said DHS English teacher Rebecca Socha.

Miscommunication about recycling at DHS also persists. According to the DHS administration, we already have effective recycling plans in place. Jennifer Olson, the principal of DHS, said in an interview, "There are practices in place to help us do a good job at [recycling]; we can always get better, but I also think everyone is doing their part in reducing waste, recycling, and repurposing, which are all ways to be good to the environment." She further mentioned that the district has implemented a <u>Green Cleaning Policy</u> (linked on derby pride.org). Olson said that there are recycling bins in the main office and cafeteria, and at the time she believed they were available and accessible in all classroom spaces as well. Olson's comments echo staff zmisunderstanding about the realities of recycling practices in the building in general. In fact, not all rooms had recycling bins until recently, and custodians report large amounts of contamination.

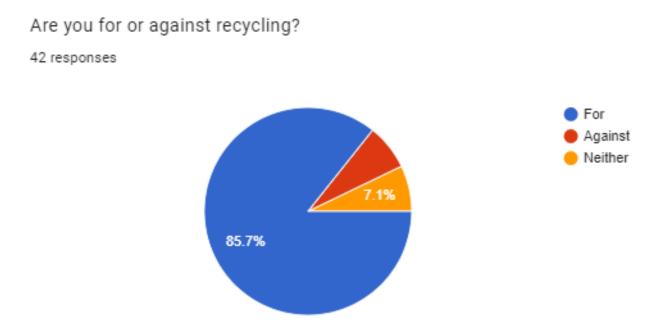


Image by The Raider Press: A survey showed overwhelming support for recycling at school.

The good news is that DHS students have voiced their concerns about wanting their school to be more environmentally friendly than it currently is. In a survey administered to students and staff, 42 students responded about the importance of recycling and its effectiveness at DHS. The responses differed, but the majority of those surveyed supported the idea of recycling but lacked confidence in its implementation. For example, one anonymous student explained, "It [recycling] means keeping our planet just a little cleaner. By our school doing it [more] can mean just a little more to keeping our planet earth cleaner." Some other anonymous responses talked about what recycling meant to them, including, "I try to recycle as much as possible to help reduce our carbon footprint and minimize waste." An interview with Savannah Harrold '25 yielded a similar response. Harrold stated, "Recycling should be implemented everywhere."

Is students' lack of confidence in DHS' recycling system justified? Olson does not think so. She says, "We have switched to more eco-friendly cleaning solutions and equipment" and "We have practices in place, and we can always get better." What Olson is referring to here is that DHS has implemented policies meant to

make DHS more eco-friendly. Some of them include using more eco-friendly materials for daily school use. Olson's optimism is supported by student support of recycling, but recycling practices at DHS are far from where they need to be if students want a building that is more environmentally friendly.

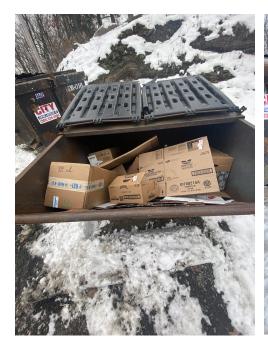
As explored above, most students and staff simply are not educated on what can and cannot be recycled. This is not just a problem in Derby: as stated in an article by the EPA, "Many people are confused about what items can be recycled, where they can be recycled, and how."

Most contamination is happening because students lack education about how to dispose of their waste. Hoffman said, "Normally around Earth Day teachers push [recycling], and it goes good for a little while, and then it goes right back." Teachers have a hard time educating and implementing recycling for long stretches of time; DPS student success with recycling happens in inconsistent spurts.

The issue of contaminated recycling in DHS highlights the lack of education about where recycling is supposed to go; other local schools have similar problems. The principal of Shelton High School said, "Yes, we do have a recycling program. Students in our transition program along with job coaches pick up the recyclables in designated areas of the building. We do not have a recycling bin in every room. The current program is successful but we could always do more by having more sites."

As for teachers, it is a communication problem. Most teachers were told by the custodial staff that trash and recycling get mixed together and all go to the same place. In fact, we do recycle – we just were not doing it correctly, so custodians told teachers that all waste was being mixed together. This was technically true at the time because of the high rate of contamination, but it was not because we do not have a recycling program; it was just because the recycled waste was getting too contaminated. Teachers took this to mean that we do not recycle at all, so stopped bothering.

Similarly, Giannotti told *The Raider Press* that he does not believe anything else besides cardboard can be recycled since the dumpster on the loading dock says "cardboard." In fact, the dumpster that says "cardboard" is the single-stream recycling dumpster where all recycled material goes. This accidental confusion leads back to the overall miscommunication about recycling, showing that the cafeteria staff can recycle more than they think they can if they were made aware of the precise recycling guidelines at school.





Photos by Gianna Akter '25: One of the dumpsters on the loading dock says "Cardboard." This is actually the single-stream recycling dumpster that takes all recycled materials, not just cardboard. The labeling on the dumpster has caused confusion for kitchen staff.

# What are other ways DHS can be more environmentally friendly?

Asking why DHS is not properly implementing recycling raises the question of how environmentally friendly DHS is in general. The consensus seems to be that

some aspects of DHS are environmentally friendly while others are not. Similarly, the intention to make DHS a more environmentally friendly place is there, but the execution is off.

"I think it is realistic to recycle more than we currently do. I think by educating everybody on what can go in [recycling bins] and what classifies as being contaminated, because once it's contaminated we have to throw it out," Hoffman stated. Based on Hoffman's statement on the matter, we can assume that there must be a lack of education with where and what you can recycle. Although Derby tries to keep a good recycling habit, it is not evident within our schools.

Our issues with recycling contribute to the fact that in some ways, DHS is environmentally friendly, and in other ways, we are not. When touching on how environmentally friendly DHS is, Hoffman discusses that DHS relies 100% on electric energy, which negatively impacts the environment. He clarifies that we also have an old system for our HVAC, and that this outdated system is not the most eco-friendly way to run a building. With this old HVAC model, some classrooms are too hot while others are too cold. Hoffman contrasts the system at DHS versus the system at DMS, stating, "What's different about the middle school is that it has a building management system, so I can control the voltage going to each classroom [which can control the heat]... [so] that building has a low carbon footprint." He continues, "If we had the advantage of accessing a new HVAC system, electricity would be saved and our carbon footprint would be lowered." Here, Hoffman explains that DHS would benefit from a new system for handling electricity that would reduce wasted energy and

consequently our carbon footprint. Getting a new HVAC system is in the works: Hoffman is applying for grants to fund the multi-million dollar project.

However, DHS is environmentally friendly in other ways, especially since we have a system that creates our own electricity. Hoffman said, "In this school, all the utilities, all the [heating, ventilation, and air conditioning (HVAC)], is 100 percent self-generated...we're green, we have a co-gen system; it's literally 4 boilers that create power, they create it at the middle school and it comes back to us."

Another leading factor to our carbon footprint would be our trays and utensils in the cafeteria. In terms of what materials the cafeteria staff use, DPS is a part of a product buying group called EastConn, an organization that any



Photo by Krystal Torres '25: The tray deposit window, not used since DHS had a tray dishwashing machine.

government agency can join. EastConn gets DHS "bid pricing," so Giannotti does not have to shop around for good prices on things like trays, utensils, and cleaning products. Unfortunately, Giannotti has to purchase single-use trays and utensils using EastConn since the kitchen staff does not have the capacity for washable trays – the kitchen simply does not have the machinery anymore. DHS used to have a tray deposit window where students would throw their food away and then deposit their trays so they could get washed and reused. This window is still there, but it is now closed off: you can see this window in the far corner to the left of the kitchen.

Giannotti acknowledges that DHS could improve its carbon footprint by having reusable trays in the cafeteria again, but the dishwasher required costs over \$30,000; Giannotti does not have the budget for such a large purchase.

If DHS is able to recycle properly and is able to update our HVAC system, then we would drop our carbon footprint significantly.

### Where do we go from here?

To recycle better, our community needs to educate itself first and foremost. This involves informing students and staff about how to recycle properly and telling them about the dangers of not doing so. We have the resources to do so – we just need to educate people to empower them to act on their good intentions. DHS students in particular need more education in this matter for it to be possible to have a successful recycling program.

Widespread communication and education about recycling and how students can contribute to it at DHS would help to solve waste issues. Hoffman says, "I would think about communication with the students as far as what can go into the bin and what can't. I would say 60 percent of our recycling ends up in the trash because it's contaminated." If every student was conscientious about where they put their trash, that 60 percent could significantly

decrease. Hoffman goes on to say, "I think by educating everybody on what can go in and what classifies it as being contaminated [would be good], because once it's contaminated we have to throw it out."

Most students know the basics of recycling and are able to express ideas like "recycling is good for the environment and recyclable items are bottles, cardboard, etc." However, that is all they know.

All classrooms at DHS now have full access to recycling bins, and we will begin to distribute flyers to spread knowledge and awareness on the importance of recycling and how to do it correctly here at DHS.

When it comes to recycling, there are a few things everyone can do to make a positive impact. First, everyone can make sure to separate recyclables like paper, plastic, glass and aluminum. Then, place them in the correct receptacle. The image on this page has details about how to do this;



Image by Jessie Yanes: The "Do's and Don'ts" of recycling at DHS.

the DHS community will soon see this flyer over every recycling bin to promote proper recycling practices.

Having recycling bins is a small step to making DHS greener, but starting additional programs here could also go a long way. For example, Jessica Gerckens '24 said, "Last year Isabela Hernandez and I started a recycling program where we collected water bottles and cans within the school and worked to form a scholarship for service-oriented students." She also said how she hopes to continue the program this year and make it permanent here at DHS.

If we follow a recycling plan similar to Recycing.com's guide, it is definitely possible for us as a community to recycle more. We can:

- Figure out what Derby's trash composition is made up of
- Figure out what we can and can't recycle
- Educate students and staff about consistent recycling
- Making sure all classrooms have recycling bins and provide them if need be
- Monitor the recycling happening
- Continue to educate students and staff about recycling

By implementing this program for our school, we should hopefully see changes in our recycling habits. Thankfully, the city of Derby provides free recycling bins, so no purchases are holding us back from providing them to teachers and staff. As soon as we are able to provide our school with the correct education on recycling, this plan to create better recycling habits will prove to be beneficial not only for our community, but for Derby as a whole. This combination with the implementation of a new HVAC system in DHS would make our school a greener place for generations to come.

If you think about it, nothing is standing in the way of DHS becoming more environmentally friendly if we all make a difference in our trash and recycling habits.

Recycling at DHS could happen more effectively in various places like the lunchroom, classrooms, and designated spots in hallways if students knew how to do it properly. By recycling, we can create a greener community and a cleaner environment. It is important to raise awareness about the issues to encourage everyone to participate.

# TL;DR:

- People have recycled for centuries, but it is especially important to do now. Recycling boosts the economy, lowers our carbon footprint, and plays a role in reducing the effects of climate change.
- We have a single-stream recycling program at DHS; all recyclable materials are disposed of in one dumpster. However, most of our recycled waste is "contaminated," meaning it has trash mixed in. When recycling is contaminated, none of it gets recycled at all.
- DHS has struggled to recycle properly because people are misinformed about what can and cannot be recycled; in addition, there has been some miscommunication about whether or not we recycle at all.
- The truth of the matter is that DHS *does* have a recycling program and students/staff have good intentions about recycling, but community members need to recycle *properly* in order for it to work.
- Flyers will be posted around the school to educate people about how to properly recycle, and to encourage more people to do so.

# DO YOUR PART TO REDUCE OUR CARBON FOOTPRINT!



SHARE THIS ARTICLE,
THEN RECYCLE IT IN ANY
RECYCLING BIN!