

## Trash or Consequences: Making a Dent in Recycling

*Lynn Gallo*

### Introduction

It is nearly impossible to ignore the current media, and social media stories and posts on the declining condition of planet Earth, particularly as it relates to climate change and the overuse of plastics. Print and broadcast media, as well as various social media platforms such as Twitter and Instagram, are filled with alarming stories and pictures of ice breaking away from glaciers in Antarctica, increasingly powerful natural disasters, and aquatic life choked with unrecycled plastics. Teenage environmental activist Greta Thunberg has gained an international following and platform based upon her passionate pleas to world leaders and governments to change their climate policies and reduce carbon emissions, as well as inspiring other students worldwide to organize climate strikes on Fridays.<sup>1</sup>

Here in Delaware, these events can seem as far away as the shrinking glaciers, even though that at the time of writing the first draft of this unit, the hottest-ever (recorded) October day had just occurred in the eastern United States and Delaware.<sup>2</sup> Indeed, while the hauling companies that provide trash services to residential customers in Delaware have been legally obligated since 2010 to provide recycling receptacles to their residential customers,<sup>3</sup> those customers *do not have to actually fill them with recycling*. They can just throw their recyclable items in the garbage; there is no consequence, such as a fine, for not recycling. Efforts to convince Delaware's populace to care more about their environment and state may increase with a partial plastic bag ban set to take effect on Jan. 1, 2021.<sup>4</sup> Many retailers will not be able to provide single-use plastic bags at their locations, the intended consequence of which is that residents will begin to use reusable bags more often on their shopping trips. Retailers will still be able to provide shoppers with paper bags, however.

I moved to Delaware in 2002 from the borough of Queens in New York City, and was astounded by the lack of recycling accountability and laws in Delaware. Curbside recycling had been mandatory in New York City since 1989<sup>5</sup> and was simply a part of everyday life. In Queens, the city sanitation department would take pictures of residents' garbage to prove they had not recycled, and then mail noncompliant residents the picture, along with a hefty fine. I knew several people to whom this happened for not recycling paper goods like junk mail and phone books. After receiving the fine, which was indisputable with photographic evidence, those residents began recycling.

When I came to Delaware, our municipal garbage company did not provide its customers with recycling containers, though the City of Newark did have public

recycling receptacles at many locations in the city, which it still maintains.<sup>6</sup> Residents would have to collect their recycling and transport it themselves to the large metal recycling containers, and then sort and throw the recycling materials in the appropriate one. I have fond memories of putting our bags of recycling in my car trunk with my preschool-aged son, driving to the recycling location with him, and then throwing items in the recycling containers. For him, it was fun target practice as he tried to throw recycling in the large openings in the side of the containers (though this is probably where his irrational fear of bees comes from, as there were always lots of them buzzing around, drawn to the sweet food residues still on some recycling materials.) When the City of Newark finally did start its curbside recycling program a few years later, I was happy and relieved (but did miss the weekly trips to the recycling containers). Even though residents of Newark and the state of Delaware did not *have* to recycle, at least more cities and municipalities were starting to offer it as part of regular garbage pick-up.

## **Background**

I am an English as a Second Language (ESL) teacher at George Read Middle School in New Castle, Delaware, which is in the Colonial School District. Students at George Read come from diverse backgrounds and face many challenges in their school and home environments – over one-third of its 788 students are identified as being low income.<sup>7</sup> About 11% of the student population are English Learners (ELs), with Spanish being the first language for the majority of them. In addition, over one-quarter of George Read's students are Hispanic, and a high percentage of those students are bilingual in Spanish and English.

The EL students I see are those with intermediate to high English skills who are placed in the same section of an ELA class in 6th, 7th, and 8th grades. I usually have about 15-20 ELs in each section of those classes, and I also service some 6th and 8th grade ELs who are additionally identified as Special Ed, and who have been placed in a Special Ed ELA class. I typically service about 55 ELs each year in grades 6-8. A few of the students I teach have been transitioned out of the Colonial School District's "Newcomer" EL program for middle school that is housed at McCullough Middle School and taught by my ESL colleagues there. Students in grades 6-8 who are new immigrants or migrant students with limited English proficiency (as identified by the WIDA Screener for English proficiency<sup>8</sup> and the HMH Reading Inventory<sup>9</sup>) are recommended to the Newcomer program at McCullough, regardless of their district feeder middle school. They are in a sheltered classroom all day for all content areas that are taught in English, and are not transitioned out into mainstream classes or back to their feeder middle schools until their English test scores have risen, and they demonstrate the academic, social, and emotional skills that would indicate success in the general school population.

For the 2019-20 academic year, my ELs come from an array of countries in Europe, Africa, the Caribbean, and a range of native Spanish-speaking countries such as Mexico, Puerto Rico, El Salvador, Ecuador, and the Dominican Republic. The students in my classes represent many facets of the EL population: first-generation English learners who have recently arrived to the United States; students who were born in the United States or another country speaking a language other than English and who are now bilingual; and those born in the United States into bilingual or multigenerational families. Students in the latter group may have the least exposure to their families' native language(s) and countries, and may express that "I don't speak a language other than English very well," or that they have never met many of their extended family members. I also have a few students who are in the ESL program though their only language is English. Most of them are from countries in Africa or the Caribbean, and speak what is termed "non-U.S. English."

Regardless of their language knowledge and whether they are conversationally bilingual, all students grapple with the increasing rigor of academic English and the demands of state and English proficiency tests. Many of them struggle to express themselves verbally and through writing, and their WIDA ACCESS writing and speaking scores are often what keeps them in the EL program.

## **Rationale**

From my experience, my students are intensely interested in the current issues that plastics pose to the environment. As 7th graders, they must write an argumentative essay at the end of the academic year on whether they think plastic water bottles should be banned from the school cafeteria as the culmination of Unit 5. To set the stage for that task, I show them images of plastics floating in oceans, and the damage plastics do to wildlife. They are universally horrified to see pictures of aquatic life and beaches choked with plastics, but unfortunately, we do not get an opportunity to delve deeper into sustainability before we have to move on in our curriculum map.

*Sustainability* also looks like and means something very different in the many countries that my ELs come from. I am positive I can learn something from them on their ideas and experiences on what it means to use, reuse and recycle items, and how that compares to what they see in Delaware. At George Read, there is a recycling program in name only. Students in one of our special programs, Integration B, collect materials about once per week from classrooms. I was not provided with a recycling bin in my classroom, but brought a box from a home Amazon Prime delivery into which we throw excess paper and some of the students' plastic items. (I do love my Amazon Prime deliveries, but am trying to cut back on them due to their impact on carbon emissions<sup>10</sup> and thought it only fitting to collect recycling in an Amazon delivery box.) My students have witnessed the Integration B students collecting the recycling as they go from classroom to

classroom, pushing a wheeled cart that holds bags into which they dump the recyclables. Unfortunately, it is all thrown away with the regular garbage (unbeknownst to the students) because George Read has no recycling containers or dumpsters. I am currently checking with other Colonial School District teachers to see if their schools have piloted a recycling program, or whether the lack of recycling is district-wide, and we are hoping to institute a policy change this academic year.

Additionally, students both witness and contribute to the large amount of waste that happens daily in our cafeteria. Nothing from there is recycled or composted; it all goes in the garbage. This includes all plastics, food containers like yogurt cups, milk bottles, and juice beverage cans. I see this firsthand because I have “lunch duty” every day during 8th grade lunch period, and I push around a garbage can on wheels that becomes filled with materials that could be recycled or composted.

My English Learners, as immigrants or the children of immigrants, are also attracted to social justice and equity issues. Just as they have been touched by Deferred Action for Childhood Arrivals (DACA),<sup>11</sup> immigration law and detention centers, they are also touched by environmental issues and the availability or lack of recyclable or reusable materials. I have also experienced that this group is particularly empathetic and wants to make a larger impact in the world. For example, last year, my current 8<sup>th</sup> graders were in the 7<sup>th</sup> grade, and read the young adult novel *Refugee*<sup>12</sup> by Alan Gratz, which tells the stories of three refugee protagonists over three different historical timelines: Josef, a Jewish teen fleeing Germany and Hitler’s oppression in 1939 with his family; Isabel, a young Cuban girl who takes a homemade boat from Cuba to Florida with friends and family in 1994 to leave riots and economic uncertainty; and Mahmoud, a Syrian boy whose family escapes civil war and hopes to travel to freedom and asylum in Germany in 2015.

Several characters in the book died, sacrificed themselves, or were simply lost as the families traveled through various countries. I have never seen the level of engagement with a novel that my students displayed during our reading of *Refugee*, and they were incredibly upset and angered by the actual or perceived injustices in the refugee and immigrant policies that were in place for the books’ characters, as those laws were – and in some cases and countries – still are the law today for millions of real people.

At the end of the book, the author, Gratz, suggests donating money to UNICEF or Save the Children to help refugees around the world. My students were so touched by the fictional stories in the novel and the plight of actual refugees – as well as their own experiences – that they suggested having a whole-school fundraiser; we donated the money we raised to UNICEF. Additionally, I just completed the novel *A Long Walk to Water*<sup>13</sup> with this group of students, which is a partial biography of Salva Dut, a native of Sudan who has started a nonprofit<sup>14</sup> to raise money to drill for water in his native country. Having clean, accessible water enables children – mainly girls – to attend school instead

of walking hours every day to unclean watering holes or ponds, and immeasurably improves the lives of thousands of people. Once again, this group of socially conscious students want to find a way to donate money to help this cause.

Taking all these factors into account, I am creating a curriculum unit centered around increasing George Read's recycling programs; the end result would be an informative essay/project about the recycling processes and why it is important to recycle. Students will also be verbally responding to questions about the recycling program and the role they can play in enhancing it by using the online recording platform Flipgrid.<sup>15</sup> As part of the Colonial School District's middle school redesign, George Read has been designated as the Culinary/Agriculture school, and has a small greenhouse where various flowering plants and fruits and vegetables are planted and tended by students. The program has two composting bins in partnership with the culinary department, but this could be greatly expanded.

While much emphasis is put on students' writing skills, their speaking skills do not garner the same attention, and they should. Though most of my students are conversationally bilingual, they grapple with the increasing rigor of verbal academic English and the demands of state and English proficiency tests. Their speaking scores are often what keeps them in the ESL program; oral literacy and proficiency in English is a heavily stressed standard on the annual WIDA ACCESS for ELLs Assessment,<sup>16</sup> but only 0.3% of Delaware ELs received a passing score during the 2017 testing period. The Speaking portion of ACCESS requires students to wear a headset with a microphone and verbally respond to a series of questions and prompts.<sup>17</sup> Students understandably find this process awkward and distressing. Many of them do not like the physical process of wearing the headsets and are anxious about their peers and test administrators hearing their responses.

Obtaining higher test scores is not my primary motivation in trying to increase my students' oral literacy. Students do not get a chance to learn or practice good speaking skills, and it is something they will need to master for success in life and their careers. They need to be comfortable using and speaking English on video and audio platforms. Skype, Zoom, and other telecommunication programs are often the first interview phase for employers and I know firsthand that an awkward video call or interview can damage job prospects. Students must demonstrate an expanding verbal academic range in the quantity and quality of their oral exchanges – both in testing and everyday interactions – and I am hoping the oral part of this project will help them feel more comfortable during testing, and also in their everyday lives.

Being verbally confident is a crucial skill in today's job market, and I continuously stress to my students that they need to think about what they want to do once they graduate from high school. Whether they go on to post-secondary education, trade school, or the work force, they need to refine their speaking skills so they can

communicate well in their careers. As Erik Palmer, author of *Well Spoken* states, “Speaking well enables us to communicate clearly with coworkers...it is crucial to professional promotion.”<sup>18</sup> The National Association of Colleges and Employers (NACE) reports that verbal communication is near the top of the list of desirable qualities that employers look for in college graduates.<sup>19</sup> Furthermore, says Palmer, students are not taught *how* to speak well, and need implicit instruction to speak effectively.<sup>20</sup> This is particularly true for ELs, who have struggled to learn and speak English for several years.

Thoughtful and respectful discussions are an integral part of eighth grade ELA classes, as students prepare to increasingly work on group projects and have partners in high school. They are expected to learn how to conduct discourse in a civil, considerate manner, even when they may disagree with a classmate. Students will be discussing and exchanging views on each other’s projects during the entire process, and will need to learn to do so thoughtfully and politely.

The Colonial School District ELA Speaking and Listening standards also require that students *gain, evaluate, and present increasingly complex information, ideas, and evidence through listening and speaking as well as through media and integrate skills related to media use (both critical analysis and production of media)*.<sup>21</sup> For these reasons, my curriculum unit will include a verbal portion of Flipgrid, as well as a written component. I am hoping students will improve their writing and speaking skills and comfortability, as well as learn more about the recycling processes at George Read and how they can begin to think of their larger role as local and global citizens.

## **Unit Objectives**

This unit is designed for middle school students, but could be modified for upper elementary grades and high school students. Students will study the recycling and composting programs at George Read, as well as observe all the recyclable items that are thrown away each day in the cafeteria. They will verbally answer a series of online video prompts, as well as research, develop and write an informational guide/writing project about recycling and how George Read can increase its participation.

For the recycling component of my unit, students will be collecting plastic caps from the milk bottles from the cafeteria as part of the Gimme 5 Program<sup>22</sup> through Preserve, a company that makes household products from 100% recycled plastics. Gimme 5 helps consumers recycle their #5 polypropylene plastics, which is one of the least-recycled plastics. Preserve then turns the #5 plastic items into toothbrushes, razors, and tableware. Preserve collects these #5 plastics at local retailers like Whole Foods Market, or consumers can mail their items to Preserve. For our unit, we will collect the plastic caps and mail them to the Gimme 5 Program in Cortland, New York, as our closest Whole Foods Market in Glen Mills, Pa., no longer collects items for Gimme 5.

Students will develop their projects in a Google Docs format, which will incorporate their audio files from Flipgrid, as well as any class pictures we take collecting plastics and also mailing them to Preserve. Students are familiar with using Google and its various Google Drive apps, as all students at George Read are assigned their own personal Chromebooks for school use.

Writing and Speaking standards will be taken from the Common Core State Standards (CCSS)<sup>23</sup> and the WIDA English Language Development (ELD) Standards for Speaking and Writing and Listening and Reading.<sup>24</sup> We will also incorporate aspects of the Colonial School District's mission for student learning, some of which were stated above.

## **Content**

To make the students aware of the extensive problem that plastics have become in the world, we will be examining several books and resources: *Plastic Pollution*<sup>25</sup> by Geoff Knight; *Pesky Plastic: An Environmental Story*,<sup>26</sup> by Leticia Colon de Mejias; Miranda Paul's *One Plastic Bag: Isatou Ceesay and the Recycling Women of the Gambia*<sup>27</sup>; *Trash Vortex: How Plastic Pollution is Choking the World's Oceans*<sup>28</sup> by Danielle Smith-Llera; and The Environmental Protection Agency's *Teach English, Teach About the Environment*<sup>29</sup> curriculum.

*Plastic Pollution* is a young adult informational text on all aspects of the dangers that plastics pose to the environment and world, and includes the history of where plastic comes from and major dates in plastic's development. It explains the Great Pacific Garbage Patch<sup>30</sup>, as well as plastic pollution on land, the burning of e-waste, and what teens can do in their communities. It also includes thought-provoking questions to get students started thinking about why some people do not value recycling.

While *Pesky Plastic: An Environmental Story* is written for younger elementary students and is far below my students' reading proficiency levels, I still plan to use some resources at the end of the book. It includes a glossary, tips on classroom activities, and also directions and pictures on how to make a homemade, reusable fabric bag from old jeans or other sturdy material. One of the classroom activities is a "Waste Analysis Activity" in which students form teams and then document trash piles and what could be recyclable (or also composted). I think this could be a good beginning activity as they start to analyze the waste in the cafeteria.

I would mainly use the third chapter of *Trash Vortex: How Plastic Pollution is Choking the World's Oceans* because it does an excellent job of illustrating how the oceans are all interconnected. If one ocean half a world away is dirty or choked with plastics, chances are good that that plastic will be carried closer to us in Delaware by water currents. It also includes some heartbreaking photos of traumatized animals and

unrecognizable beaches, not a patch of sand in sight, because of all the plastics littering the area.

As the students are already somewhat familiar with the geography of Africa and the problems many villagers there face from our reading of *A Long Walk to Water*, I think *One Plastic Bag: Isatou Ceesay and the Recycling Women of the Gambia* will inspire them to realize that one person, or a small group of them, can bring awareness to a topic and make change happen. Ceesay was bothered by all the plastic bags choking her village, and had an idea to weave the plastic into coin purses. Ridiculed for the idea, as well as for being a woman who had dropped out of school at a very young age, she looked for solutions instead of dwelling on the problems. That in itself is a valuable life lesson for my students. I hope they will be inspired by Ceesay's passion and perseverance as we begin our plastic recycling campaign in the cafeteria.

Finally, the EPA's guide, while developed for adult ESL students, has some good resources and questions under the *Advanced Level* lesson plan, which would correlate to my students' proficiency level. I would focus on getting them to consider what things are reused or recycled in their home countries, and if there are fines or penalties to pay there for not recycling. How is that different from the United States? Why do they think there may be less recycling in the United States, which is such an economically advantaged place? Do they think this perception or attitude may impact why more things aren't recycled in their own school community?

## **Strategies**

Oftentimes, EL students' first exposure to using computers upon arrival to the United States is to be forced to sit in front of them for most of the school day using various language-learning programs because their mainstream teachers do not know what to do with them. This is especially true if a school or district does not have a Newcomer EL program. I have also witnessed overuse of translation programs, such as Google Translate, to extensively communicate with ELs or modify their assignments. Not only are these lazy strategies in interacting with ELs, they hinder students' ability to increase English proficiency.

Students need varied exposure to their new language that incorporates visual and audio supports, which lasts long after students have become conversationally proficient. In designing this unit, I wanted to find a way to integrate technology with their informational writing project. Using technology with EL students increases their English proficiency, and also leads to increased motivation and confidence.<sup>31</sup> To practice listening to their voices and seeing themselves on a screen, students will practice speaking with a platform we have not used before, Flipgrid. At this writing, I have actually created my first Flipgrid and will be using it with these students on the next school day, and I plan to implement it several times before this project, so they are comfortable with it.



Many of my students need reading strategies that will help them comprehend and access unfamiliar vocabulary words, context, and background knowledge. For some of the selections from the texts we will be reading, I will have students build background knowledge so they can understand the excerpts; discuss and highlight new vocabulary words, and have them use the new words in class. While we do not have enough time to read all of the books, examining “chunks” of reading is a research-proven way to increase comprehension and vocabulary knowledge.<sup>32</sup>

Students will be producing an informational guide in which they inform the reader of what they have learned about the issue of plastic pollution and how they helped institute a new recycling program at George Read. To demonstrate comprehension of the problems surrounding plastic pollution and recycling, they will answer some critical thinking questions, which will help them develop and apply the higher order thinking abilities they will need to make connections between what is happening globally and in their own school.

### **Classroom Activities** (designed for a daily 60-minute ELA class)

#### Day One: Introduction to Plastic Pollution

##### *Warm-Up*

To build background about recycling, I will have students read the article “Reduce, reuse and recycle,”<sup>33</sup> found on Actively Learn, a free online curriculum platform on which teachers can create an account and assign articles to students. Actively Learn is a resource I have just begun using and which I really like because the articles have questions embedded within sections of text, instead of all the comprehension questions appearing at the end of a text. For my class, I will post a link to this article on Schoology, the Learning Management System (LMS) that Colonial School District extensively uses for its students, who all have their own school-assigned Chromebooks. Students will access the article from a link in Schoology, and will answer the embedded questions online within the article.

Next, students will read another Actively Learn article, “Coastal pollution,”<sup>34</sup> on plastic pollution in the oceans, and answer the embedded questions.

##### *Exit Ticket*

To get students thinking about the amount of plastics and other materials thrown away in the cafeteria, students will answer this Exit Ticket question on Schoology (though it can also be written on paper): *What do you think can be done about all the plastic items that are thrown away daily in our own cafeteria? What makes you say that?*

## Day Two: Continued Reading, Videos, and Vocabulary

### Warm-Up

I will introduce the students to Greta Thunberg, and explain that she is only a couple years older than they are, but has been catapulted to international renown in the past year for her efforts on behalf of climate action. I will show the students Thunberg's speech from the September 23 United Nations Climate Summit,<sup>35</sup> as well as some of the viral music videos that were made from parts of her speech. Some of the videos I think will resonate with students are "Greta Thunberg Sings Swedish Death Metal,"<sup>36</sup> Fatboy Slim's sampling set to one of his songs,<sup>37</sup> and a dance version.<sup>38</sup>

### Class Activities

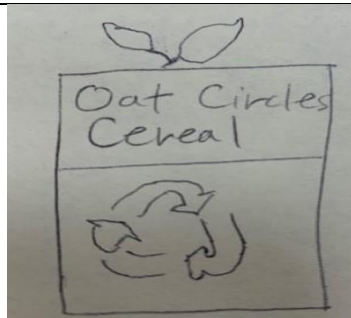
I will next read students sections of *Isatou Ceesay and the Recycling Women of the Gambia* so that they can further see how a lone person can influence attitudes and enact change. We will also look at pages four through nine of *Plastic Pollution*, which explains how plastic is manufactured, a timeline of its history, why it became so popular, and the dark side of that popularity.

As students read from our resources, they will use a vocabulary graphic organizer like the one below to define words with which they are unfamiliar, use those words in a sentence, and possibly sketch or find pictures online of what this word means to them. Students can use a classroom dictionary, or a good online source, such as Merriam-Webster's Learner's dictionary.<sup>39</sup>

Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Vocabulary Journal

Word	Where I found it:	Dictionary Definition	Picture
biodegradable	Knight, p. 6	Capable of being slowly destroyed and broken down into very small parts by natural processes, bacteria, etc.	

**Sentences:**

- Biodegradable items should not be put in a recycling container.
- 

Next, we will watch an excellent video from TED-Ed on how plastics are made and what happens if they do not get recycled.<sup>40</sup>

*Unit Explanation*

I will tell the students that we will be starting a class project on recycling at George Read, and we will begin it with collecting the plastic caps from the milk bottles in the cafeteria, which we will be mailing to Gimme 5. I will also explain that they will be researching some recycling topics that they will have to write about for an informational writing piece, which is part of their current curricular unit.

Day Three: Continued Learning Activities, Flipgrid, and School Advocacy

*Warm-Up*

Students will log on to Schoology and answer the following discussion posts: 1) *Go to Google and search “Where does fleece come from?” Surprised? Why or why not?;* and 2) *Go to Google and search “nurdles” (yes, it is a word) and post what a nurdle is. Why are they such a problem?*

When students are done posting on Schoology, I will show them some pictures from chapter three of *Trash Vortex*, so they can further see the impact that plastics are having on the world’s oceans and aquatic life. This chapter features disturbing photographs of plastic pellets piled up on beaches, dead whales, sea lions entangled in plastics, and children in Indonesia sorting through mounds of plastics.

*Speaking Activity*

Students will go to Flipgrid and verbally answer the prompt I have set up for them in their 8<sup>th</sup> grade ELA class: *After reading about and seeing the pictures of plastics choking oceans and landfills, and watching Greta Thunberg’s speech, do you think she is being*

*too dramatic about these issues? Why or why not? Explain your reasoning. You can use this sentence starter to begin your discussion: I do/do not think Greta is being too dramatic because...*

### *Letter Writing/Advocacy*

I will ask the students to help me write a letter asking our principal if we can start a recycling program in the cafeteria. I will pull up a blank document on our Smartboard and will ask the students to help me compose the letter, which we will all sign and then give to him. Below is an example:

*November 7, 2019*

*Dear Mr. Wolfe,*

*We need your help to recycle the plastic milk bottle caps in the cafeteria. Instead of throwing them out, we should place a recycling bin in the cafeteria or collect them. If we don't recycle plastic, it could end up in landfills or the ocean, which is a problem because it can kill animals and it's bad for the environment. Did you know that one plastic bottle takes 1,000 years to break down in a landfill? Also, if those bottles end up in a river or ocean, fish or other turtles could eat them and choke or suffocate to death; 100 million die every year.*

*We are hoping that if we could start recycling here, it will spread around to other schools in Colonial School District. Please consider our request, and we thank you for your time.*

*Sincerely,*

*Mrs. Gallo's 8<sup>th</sup> grade ELA class*

### **Day Four: Comparing Recycling in Delaware to Students' Native Countries**

Using the EPA's language curriculum on recycling as a guide, I will lead a discussion with the students of what recycling and reusing looks like in their native countries, as well as the United States' seeming obsession with having the latest gadgets and cell phones.

### *Warm-Up*

I will post the following discussion questions on the Smartboard for students, who will "turn and talk" with their shoulder partners or students sitting closest to them:

- Do you recycle in your native countries? If so, what items are recyclable?
- What items do you reuse in your native countries? For example, do you reuse plastic bags, or turn old clothes into other useful items? (I will share with them how my grandmother turned her sons' old shirts into kitchen towels and used bread bags to pack their lunches in.)
- When you go to the store in your native countries, is there a lot of plastic packaging for things like fruits and vegetables or baked goods?
- Why do you think recycling may be limited in the United States or our school communities? If recycling is so important, why do you think many people don't do it? How is this different from your native countries?

After students have had a chance to discuss these questions, I will post some of their answers on the Smartboard, and then I will start a discussion about cell phone and device culture in the United States. I will begin by asking them why we all feel we need to get new phones every two years: Don't these phones all do the same things? After the initial excitement of getting a new phone wears off, are our lives any different than they were before? What do they think happens to our old phones if we trade them in?

I will then ask students to consider why many people in the United States overuse plastic items and do not recycle, and we will make a list. Below are my students' ideas:

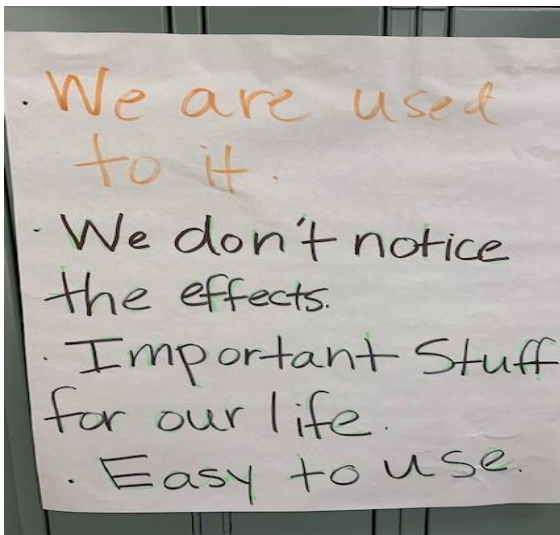


Fig. 1: Why don't Americans recycle?  
Image Credit: Lynn Gallo

Many of my students made the observation that if we had to live with heaps of plastics in our neighborhoods or on our local beaches, we would do something about it. But

because we are not locally impacted, we do not have to care about what is happening in other countries thousands of miles away.

With the remaining class time, students will copy the following graphic organizer into their notebooks. They will bring their notebooks into the cafeteria and will be using this graphic organizer to catalog the items in the cafeteria.

Item	Location	Recyclable?

Students will also begin collecting the milk caps in the cafeteria on this day. As we were not able to secure a recycling bin from the school, I will simply give the students a bag into which they can put the milk caps. Students can volunteer to collect the caps, though teachers may also assign a different student to this daily task.



Fig. 2: Cap collection in the cafeteria. Image Credit: Lynn Gallo



Fig. 3: Cap collection in the cafeteria. Image Credit: Lynn Gallo

## Day Five: Flipgrid Posts and Examining the Composting Program

### *Warm-Up*

Students will log on to Flipgrid and verbally respond to questions I have put in their ELA class: *What did you notice about the items that were thrown away in the cafeteria? Besides the milk bottles, were there other items that could have been recycled? What will be difficult in starting a cafeteria recycling program?*

### *Discussion*

After students have completed their Flipgrid posts, we will talk as a class about what they observed and wrote down in their notebooks, as well as their thoughts on what could make cafeteria recycling challenging. If students are having a tough time articulating what the obstacles are, I would guide them to think about the leftover food in the plastic containers. What will have to happen to the containers before they can be recycled?

### *Composting Visit*

The students and I will visit the outdoor composting bins, which our Agriculture teacher oversees in collaboration with the Culinary teacher. Students who are in Culinary classes dump compostable materials outdoors in the bins near George Read's two small greenhouses. The Agriculture classes use the compost when they plant flowering plants, herbs, and vegetables. We will also talk to the Agriculture and Culinary teachers about how the program works and ask them additional questions if students have them.

Once we return to the classroom, students will log on to Schoology and answer the following questions: *What are some similarities between the things that are composted from the Culinary department, and the food that is thrown away in the cafeteria? Do you think it would be possible to increase the composting program at George Read? Why or why not?*



Fig. 4: George Read's two compost bins. Image Credit: Lynn Gallo



Fig. 5: Compost bins with vegetable beds visible to the left. Image Credit: Lynn Gallo

### Day Six: Beginning to Write

Now that students have ample background material for their informational writing pieces, I will ask them to choose from the following topics:

- Delaware's recycling laws and practices: Do we have to recycle in Delaware? What happens if we don't? What is our state doing to promote recycling? How does our recycling program at George Read fit into Delaware's recycling procedures?
- What happens to plastics if you don't recycle them? Where do they go, and what do they do to the environment? How does the lack of recycling at George Read and other schools impact the environment?
- The Great Pacific Garbage Patch: What is it? How did it get there? What is it doing to the ocean and marine life? Can we do anything about it? Do you think any of the plastics we throw away at George Read could possibly be in the ocean right now?
- Greta Thunberg: Who is this Swedish teenager? How did she become famous, and what is she trying to do?
- eWaste: What happens to our old computers and phones when we don't want them anymore, or when we trade them in? Where do they go? Is there anything we can do to stop all the eWaste?

Students will log on to Flipgrid and post the topic they chose, and why they decided to write about it. After I listen to all their posts, we will individually conference so that I can ensure they have chosen an issue in which they are truly interested and want to write about. (My students' most popular choice was Greta Thunberg, followed by what happens to plastic if it does not get recycled.)

The above topics and research questions will be posted on Schoology so students can easily access and refer back to them. For my class, students will create a Google Doc they will share with me for their informational piece, though teachers may choose another writing platform. Teachers may also want to review with students how to find credible and reliable sources and how to cite them; I will not do this, as my students have already examined these processes in ELA and Social Studies classes.

#### Days 7 through 10: Continued Writing

Students will continue to write their informational pieces; my goal for them is to finish one paragraph per day. Due to language proficiency levels and their EL status, they need several days to finish writing assignments, though teachers may adjust the number of writing days to fit their students' needs. Students will also insert a link to their Flipgrid posts within their writing; this is very easy, as Flipgrid lets users copy links, QR codes, and embed codes, as well as download MP4 videos or save videos to Google Drive.

Below are student writing samples; the first topic was the Great Pacific Garbage Patch, and the second was recycling laws in Delaware:



### *Student Sample One*

#### *The Great Pacific Garbage patch*

*How would you feel if they tell that you are eating trash when you eat fish? You wouldn't feel very well would you. Well this is something that is happening. It can be dangerous for your health and your family's health too.*

*Did you know that there are 5 garbage patches in the ocean? A garbage patch are a floating islands made of trash. These garbage patches are located at the Indian Ocean, there are two more in the Atlantic Ocean and the last two are at the Pacific Ocean. You might be wondering how they got there, well these garbage patches got there because of us, all the trash that we make is thrown away into the sea, all the plastic that we don't recycle goes to the sea and this is an issue because sea animals eat this trash. The fish we eat also eat trash and when we eat that fish we are putting our health at risk and our families too.*

### *Student Sample Two*

*Have you ever wonder if people don't do recycling in Delaware? Have you ever thought about Delaware's own recycling laws? Not recycling can harm the earth in so many ways that we don't know and it can calls pollution all around the earth. People think it is okay not to recycle but it's really not okay. They should know it can hurt the animal in the ocean like the fish we eat every day. If fishermen catch the fish and sell them and we buy them and eat them, if there is plastic inside the fish and we don't know now we are eating our own plastic. So we have to do recycling to save the ocean, river and the whole world.*

*What happens if you don't do recycling do you get in trouble? No, because the cops don't come to you and say "you are in trouble for not recycling." So you don't get in trouble in Delaware and if we did get in trouble people will stop and do the right thing instead of the wrong things. We are throwing away so much plastic and food during lunch time and we need to stop that and do something better with these things like recycling or throwing the old food outside for the gardens.*

### **Resources**

“ACCESS for ELLs.” WIDA. Accessed October 12, 2019.

<https://wida.wisc.edu/assess/access>. Explanation of the ACCESS for ELLS test.

“ACCESS for ELLs 2.0 Online Speaking Guidance Grades 6-12.” Accessed October 12, 2019, <https://wida.wisc.edu/sites/default/files/resource/ACCESS-Online-Speaking-Guidance-Gr-6-12.pdf>. How to help ELLs understand the Speaking test.

Casteel, Clifton A. "Effects of Chunked Reading among Learning Disabled Students: An Experimental Comparison of Computer and Traditional Chunked Passages." *Journal of Educational Technology Systems* 17, no. 2 (1988): 115-21. doi:10.2190/ebnp-6q4w-1bjw-g5hm. Study that relates how chunking sentences improves comprehension.

"Coastal pollution," Actively Learn, accessed November 11, 2019. <https://read.activelylearn.com/#student/reader/1218664/notes>. An ELA article on coastal and ocean pollution due to plastics.

Colon de Mejias, Leticia. *Pesky Plastic: An Environmental Story*. United States: Great Books 4 Kids, 2013. This is an elementary-level book, but has a good glossary and great tips in the back for classroom activities and also making your own reusable bag.

"Colonial School District English Language Arts Curriculum." Accessed October 11, 2019. <http://www.colonialschooldistrict.org/academics/english-language-arts-curriculum/>. Colonial School District's ELA vision for all its students.

"Common Core State Standards Initiative." Accessed October 12, 2019. <http://www.corestandards.org/>. Information on the Common Core State Standards Initiative.

"Deferred Action for Childhood Arrivals (DACA)." U.S. Department of Homeland Security. Accessed October 10, 2019. <https://www.dhs.gov/deferred-action-childhood-arrivals-daca>. Information on the DACA program.

"Delaware bans plastic bags for large stores beginning in Jan. 2021." WHYY. Accessed October 3, 2019, <https://whyy.org/articles/delaware-bans-plastic-bags-for-large-stores-beginning-in-jan-2021/>. An article about how Delaware plans to reduce plastic bag use at some stores starting in 2021.

"Delaware Recycles." Delaware Department of Natural Resources. Accessed October 11, 2019. <https://dnrec.alpha.delaware.gov/waste-hazardous/recycling/>. The state of Delaware's website on recycling laws and procedures.

"Delaware Report Card: (Read) George Middle School." Accessed October 3, 2019. <https://reportcard.doe.k12.de.us/detail.html#aboutpage?scope=school&district=34&school=474>. Delaware Department of Education information on George Read.

"English Language Arts Standards: Speaking & Listening, Grade 8." Common Core State Standards Initiative. Accessed October 12, 2019.

- <http://www.corestandards.org/ELA-Literacy/SL/8/>. Eighth grade Common Core State Standards for Speaking and Listening.
- “English Language Arts Standards: Writing.” Common Core State Standards Initiative. Accessed October 12, 2019. <http://www.corestandards.org/ELA-Literacy/WHST/6-8/>. Eighth grade Common Core State Standards for writing.
- “Exceptional heat wave topples October records across much of the U.S.” *The Washington Post*. Accessed October 3, 2019. <https://www.washingtonpost.com/weather/2019/10/02/exceptional-heat-wave-topples-october-records-across-much-us/>. This news article details an autumn heat wave that caused many records to fall across the eastern United States.
- “Flipgrid, Empower Every Voice.” Flipgrid. Accessed October 11, 2019. <https://info.flipgrid.com/>. Flipgrid is an online speaking and video platform.
- “Fridays for Future.” Accessed October 3, 2019. <https://www.fridaysforfuture.org/>. This is Greta Thunberg’s website geared towards activism and climate strike events.
- “Gimme 5 Overview.” Preserve. Accessed October 12, 2019. <https://www.preserve.eco/pages/gimme5-overview>. An overview of the Gimme 5 recycling program.
- Gratz, Alan. *Refugee*. New York: Scholastic Press, an imprint of Scholastic Inc., 2017. Gratz’s young adult novel that follows three refugees over different historical time periods.
- “Great Pacific Garbage Patch.” National Geographic. Accessed October 12, 2019. <https://www.nationalgeographic.org/encyclopedia/great-pacific-garbage-patch/>. An article that explains the Great Pacific Garbage Patch.
- “Greta Thunberg – HOW DARE YOU – extended Dance-Version!” Accessed November 23, 2019. <https://www.youtube.com/watch?v=nUb4MovqcBY>. A viral video of parts of Thunberg’s UN speech set to dance music.
- “Greta Thunberg sings Swedish Death Metal.” Accessed November 23, 2019. <https://www.youtube.com/watch?v=1kD1zubg3cA>. Another viral video set to a Swedish death metal band sampling parts of Thunberg’s UN Speech.
- “Greta Thunberg’s UN Sept 23 Speech.” Fridays For Future. Accessed November 23, 2019. <https://www.fridaysforfuture.org/>. Thunberg’s Sept. 23, 2019, speech at the UN Climate Change Summit 2019.

- “Houghton Mifflin Harcourt Reading Inventory.” Houghton Mifflin Harcourt Assessment. Accessed October 10, 2019. <https://www.hmhco.com/programs/reading-inventory>. Information on HMH’s literacy assessment.
- “How free one-day shipping is heating up the planet.” CBS News. Accessed November 16, 2019. <https://www.cbsnews.com/news/amazon-prime-day-one-day-shipping-has-a-huge-carbon-footprint/>. An article about how Amazon Prime deliveries are adding to carbon emissions.
- Knight, Geof. *Plastic Pollution*. Chicago: Heinemann Library, 2012. Knight details the history of plastic and how it came to overwhelm the world’s landfills and oceans.
- Lacina, J. “Promoting Language Acquisitions: Technology and English Language Learners.” *Childhood Education*, 81, no. 2 (2004): 113-115. Second-language learning and the use of technology.
- Merriam-Webster Learners Dictionary. Accessed November 24, 2019. <http://learnersdictionary.com/>. A good online dictionary for ELs.
- “New York City’s History-Making Recycling Law turns 25 Years Old (Part 1).” National Resources Defense Council, accessed October 11, 2019. <https://www.nrdc.org/experts/eric-goldstein/new-york-citys-history-making-recycling-law-turns-25-years-old-part-i>. A 2014 article on the 25<sup>th</sup> anniversary of New York City’s mandatory recycling law.
- Palmer, Erik. *Well spoken: teaching speaking to all students*. Portland, ME: Stenhouse Publishers, 2011. Palmer’s book on increasing speaking confidence and proficiency.
- Paul, Miranda. *One Plastic Bag: Isatou Ceesay and the Recycling Women of The Gambia*. This picture book tells the story of Isatou Ceesay and how she and other women in The Gambia began weaving strips of plastic from plastic bags into coin purses that they sell.
- Park, Linda Sue. *A Long Walk to Water*. New York: Clarion Books, 2010. Park’s novel about real-life South Sudan civil war survivor Salva Dut and his mission to bring clean water to his native country.

- “Recycling Center Locations.” City of Newark Delaware. Accessed October 11, 2019. <https://newarkde.gov/501/Recycling-Center-Locations>. The City of Newark, Delaware’s, recycling drop-off locations.
- “Reduce, reuse, recycle.” Actively Learn. Accessed November 11, 2019. <https://read.activelylearn.com/#teacher/reader/authoring/1076702/notes>. A leveled text for students on the three R’s of recycling.
- Smith-Llera, Danielle. *Trash Vortex: How Plastic Pollution is Choking the World’s Oceans*. North Mankato, MN: Compass Point Books, 2018. An elementary to young adult resource on how plastics are polluting the world’s oceans.
- “Teach English, Teach About the Environment.” United States Environmental Protection Agency. Accessed October 12, 2019. <https://www.epa.gov/sites/production/files/2015-09/documents/tesol.pdf>. The EPA’s adult ESL lessons on recycling.
- “The Key Attributes Employers Seek on Students’ Resumes.” NACE. Accessed October 11, 2019. <https://www.naceweb.org/about-us/press/2017/the-key-attributes-employers-seek-on-students-resumes/>. NACE’s study results on what employers look for when hiring recent college graduates.
- “Watch Fatboy Slim Play the Greta Thunberg ‘Right here, Right Now’ Remix Live.” Billboard. Accessed November 23, 2019. <https://www.billboard.com/articles/news/dance/8532423/fatboy-slim-greta-thunberg-right-here-right-now-remix-live>  
A remix of a Fatboy Slim song that features parts of Thunberg’s speech from the UN Climate Action Summit.
- “Water for South Sudan.” Accessed October 12, 2019. <https://www.waterforsouthsudan.org/>. An organization that helps raise money for and build water wells in South Sudan.
- “What really happens to the plastic you throw away?” Emma Bryce, TED-Ed. Accessed November 23, 2019. [https://www.ted.com/talks/emma\\_bryce\\_what\\_really\\_happens\\_to\\_the\\_plastic\\_you\\_throw\\_away?language=en](https://www.ted.com/talks/emma_bryce_what_really_happens_to_the_plastic_you_throw_away?language=en). A video on plastic’s manufacture and what happens to it if it is not recycled, as well as the recycling process.
- “WIDA English Language Development Standards.” WIDA Standards & Instruction. Accessed October 10, 2019. <https://wida.wisc.edu/teach/standards/eld>. ELD standards to support multilingual students.

## **Appendix**

### Implementing District Standards, Common Core State Standards, and WIDA English Language Development Standards

#### *Colonial School District ELA Speaking and Listening standards:*

Students will gain, evaluate, and present increasingly complex information, ideas, and evidence through listening and speaking, as well as through media, and integrate skills related to media use (both critical analysis and production of media).

#### *Common Core State Standards*

*CCSS.ELA-LITERACY.WHST.6-8.1.B:* Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrates an understanding of the topic or text, using credible sources.<sup>41</sup>

*CCSS.ELA-LITERACY.WHST.6-8.2:* Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.<sup>42</sup>

*CCSS.ELA-LITERACY.WHST.6-8.7:* Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.<sup>43</sup>

*CCSS.ELA-LITERACY.SL.8.5:* Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.<sup>44</sup>

*CCSS.ELA-LITERACY.SL.8.1.A:* Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe, and reflect on ideas under discussion.<sup>45</sup>

#### *WIDA English Language Development Standards*

The WIDA English Language Development (ELD) Standards for Listening and Reading and Speaking and Writing that I will utilize include compound, complex grammatical constructions (e.g., multiple phrases and clauses); a broad range of sentence patterns characteristic of particular content areas; rich descriptive discourse with complex sentences; and organized, cohesive and coherent expression of ideas.

## Notes

---

<sup>1</sup> “Fridays for Future,” accessed October 3, 2019, <https://www.fridaysforfuture.org/>

<sup>2</sup> “Exceptional heat wave topples October records across much of the U.S.,” *The Washington Post*, accessed October 3, 2019, <https://www.washingtonpost.com/weather/2019/10/02/exceptional-heat-wave-topples-october-records-across-much-us/>

<sup>3</sup> “Delaware Recycles,” Delaware Department of Natural Resources, accessed October 11, 2019, <https://dnrec.alpha.delaware.gov/waste-hazardous/recycling/>

<sup>4</sup> “Delaware bans plastic bags for large stores beginning in Jan. 2021,” WHYY, accessed October 3, 2019, <https://whyy.org/articles/delaware-bans-plastic-bags-for-large-stores-beginning-in-jan-2021/>

<sup>5</sup> “New York City’s History-Making Recycling Law turns 25 Years Old (Part 1),” National Resources Defense Council, accessed October 11, 2019, <https://www.nrdc.org/experts/eric-goldstein/new-york-citys-history-making-recycling-law-turns-25-years-old-part-i>

<sup>6</sup> “Recycling Center Locations,” City of Newark Delaware, accessed October 11, 2019, <https://newarkde.gov/501/Recycling-Center-Locations>

<sup>7</sup> “Delaware Report Card: (Read) George Middle School,” accessed October 3, 2019, at <https://reportcard.doe.k12.de.us/detail.html#aboutpage?scope=school&district=34&school=474>

<sup>8</sup> “WIDA English Language Development Standards,” WIDA Standards & Instruction, accessed October 10, 2019, <https://wida.wisc.edu/teach/standards/eld>

<sup>9</sup> “Houghton Mifflin Harcourt Reading Inventory,” Houghton Mifflin Harcourt Assessment, accessed October 10, 2019, <https://www.hmhco.com/programs/reading-inventory>

<sup>10</sup> “How free one-day shipping is heating up the planet,” CBS News, accessed November 16, 2019, <https://www.cbsnews.com/news/amazon-prime-day-one-day-shipping-has-a-huge-carbon-footprint/>

<sup>11</sup> “Deferred Action for Childhood Arrivals (DACA),” U.S. Department of Homeland Security, accessed October 10, 2019, <https://www.dhs.gov/deferred-action-childhood-arrivals-daca>

<sup>12</sup> Alan Gratz, *Refugee* (New York: Scholastic Press, an imprint of Scholastic Inc., 2017).

<sup>13</sup> Linda Sue Park, *A Long Walk to Water* (New York: Clarion Books, 2010).

<sup>14</sup> “Water for South Sudan,” accessed October 12, 2019, <https://www.waterforsouthsudan.org/>

<sup>15</sup> “Flipgrid, Empower Every Voice,” Flipgrid, accessed October 11, 2019, <https://info.flipgrid.com/>

<sup>16</sup> “ACCESS for ELLs,” WIDA, accessed October 12, 2019, <https://wida.wisc.edu/assess/access>

- 
- <sup>17</sup> “ACCESS for ELLs 2.0 Online Speaking Guidance Grades 6-12,” accessed October 12, 2019, <https://wida.wisc.edu/sites/default/files/resource/ACCESS-Online-Speaking-Guidance-Gr-6-12.pdf>
- <sup>18</sup> Erik Palmer. *Well spoken: teaching speaking to all students* (Portland, ME: Stenhouse Publishers, 2011), 5.
- <sup>19</sup> “The Key Attributes Employers Seek on Students’ Resumes,” NACE, accessed October 11, 2019, <https://www.naceweb.org/about-us/press/2017/the-key-attributes-employers-seek-on-students-resumes/>
- <sup>20</sup> Erik Palmer. *Well spoken: teaching speaking to all students* (Portland, ME: Stenhouse Publishers, 2011), 7.
- <sup>21</sup> “Colonial School District English Language Arts Curriculum,” accessed October 11, 2019, <http://www.colonialschooldistrict.org/academics/english-language-arts-curriculum/>
- <sup>22</sup> “Gimme 5 Overview,” Preserve, accessed October 12, 2019, <https://www.preserve.eco/pages/gimme5-overview>
- <sup>23</sup> “Common Core State Standards Initiative,” accessed October 12, 2019, <http://www.corestandards.org/>
- <sup>24</sup> “WIDA English Language Development Standards,” WIDA Standards & Instruction, accessed October 12, 2019, <https://wida.wisc.edu/teach/standards/eld>
- <sup>25</sup> Geof Knight, *Plastic Pollution* (Chicago: Heinemann Library, 2012).
- <sup>26</sup> Leticia Colon de Mejias, *Pesky Plastic: An Environmental Story* (Great Books 4 Kids, United States, 2013).
- <sup>27</sup> Miranda Paul, *Isatou Ceesay and the Recycling Women of the Gambia* (Minneapolis: Millbrook Press, a division of Lerner Publishing Group, Inc., 2015).
- <sup>28</sup> Danielle Smith-Llera, *Trash Vortex: How Plastic Pollution is Choking the World’s Oceans* (North Mankato, MN: Compass Point Books, 2018), 26-43.
- <sup>29</sup> “Teach English, Teach About the Environment,” United States Environmental Protection Agency, accessed October 12, 2019, <https://www.epa.gov/sites/production/files/2015-09/documents/tesol.pdf>
- <sup>30</sup> “Great Pacific Garbage Patch,” National Geographic, accessed October 12, 2019, <https://www.nationalgeographic.org/encyclopedia/great-pacific-garbage-patch/>
- <sup>31</sup> Lacina, J. (2004). Promoting language acquisitions: technology and English language learners. *Childhood Education*, 81 (2), 113-115.
- <sup>32</sup> Casteel, C. A. (1988). Effects of chunked reading among learning disabled students: An experimental comparison of computer and traditional chunked passages. *Journal of Educational Technology Systems*, 17 (2), 115-121.
- <sup>33</sup> “Reduce, reuse, recycle,” Actively Learn, accessed November 11, 2019, <https://read.activelylearn.com/#teacher/reader/authoring/1076702/notes>
- <sup>34</sup> “Coastal pollution,” Actively Learn, accessed November 11, 2019, <https://read.activelylearn.com/#student/reader/1218664/notes>
- <sup>35</sup> “Greta Thunberg’s UN Sept 23 Speech,” Fridays For Future, accessed November 23, 2019, <https://www.fridaysforfuture.org/>



---

<sup>36</sup> “Greta Thunberg sings Swedish Death Metal,” accessed November 23, 2019,

<https://www.youtube.com/watch?v=1kD1zubg3cA>

<sup>37</sup> “Watch Fatboy Slim Play the Greta Thunberg ‘Right here, Right Now’ Remix Live,” Billboard, accessed November 23, 2019,

<https://www.billboard.com/articles/news/dance/8532423/fatboy-slim-greta-thunberg-right-here-right-now-remix-live>

<sup>38</sup> “Greta Thunberg – HOW DARE YOU – extended Dance-Version!” accessed November 23, 2019, <https://www.youtube.com/watch?v=nUb4MovqcBY>

<sup>39</sup> Merriam-Webster Learners Dictionary, accessed November 24, 2019,

<http://learnersdictionary.com/>

<sup>40</sup> “What really happens to the plastic you throw away?” Emma Bryce, TED-Ed, accessed November 23, 2019,

[https://www.ted.com/talks/emma\\_bryce\\_what\\_really\\_happens\\_to\\_the\\_plastic\\_you\\_throw\\_away?language=en](https://www.ted.com/talks/emma_bryce_what_really_happens_to_the_plastic_you_throw_away?language=en)

<sup>41</sup> “English Language Arts Standards: Writing,” Common Core State Standards Initiative, accessed October 12, 2019, <http://www.corestandards.org/ELA-Literacy/WHST/6-8/>

<sup>42</sup> “English Language Arts Standards: Writing,” Common Core State Standards Initiative, accessed October 12, 2019, <http://www.corestandards.org/ELA-Literacy/WHST/6-8/>

<sup>43</sup> “English Language Arts Standards: Writing,” Common Core State Standards Initiative, accessed October 12, 2019, <http://www.corestandards.org/ELA-Literacy/WHST/6-8/>

<sup>44</sup> “English Language Arts Standards: Speaking & Listening, Grade 8,” Common Core State Standards Initiative, accessed October 12, 2019,

<http://www.corestandards.org/ELA-Literacy/SL/8/>

<sup>45</sup> “English Language Arts Standards: Speaking & Listening, Grade 8,” Common Core State Standards Initiative, accessed October 12, 2019,

<http://www.corestandards.org/ELA-Literacy/SL/8/>