BEFORE Reading (to be completed before reading the text in order to prepare to read the pair of texts):

1. Brainstorm a list of items in your house that are made of plastic.  On your own paper!

2. Think about the items you have listed. Write a short paragraph describing the pro’s and con’s of having so many items made of plastic.  On your own paper!

DURING Reading:

3. Read, “The Problem of Plastic” and “Can We Save Our Planet From Plastic? Turn each heading in the texts into QUESTION, as you read use the highlighter tool to show key/important ideas from each section of both texts that ANSWER the questions. Type these directly onto the text, beside each heading!

The Problem of Plastic – TEXT #1

Plastic makes life easy and convenient. But at what cost?
By Mackenzie Carro

Imagine that you are a plastic soda bottle sitting on a shelf in some store. One day, a human comes along, plucks you from the shelf, and gulps down the soda you contain. Then you are tossed into a recycling bin.

But you won’t be recycled. Like most plastic, you don’t make it that far. Instead, you are blown around until you land in a river that carries you out to sea.

What happens to you now?

Sunlight and saltwater will slowly break you down into tinier and tinier pieces. Some of these pieces will float around in the ocean for centuries. In the year 2500, some of these pieces may still exist. Other pieces will be eaten by fish, sea turtles, and birds. Many of these animals will get sick. Some will die.

Today, experts are sounding the alarm about the problem of plastic trash. Seven billion tons of it has accumulated on our planet. (How much is that? Put it this way: An elephant weighs just 6 tons.) Much of this plastic has ended up in the ocean, where it has created a crisis.

But not so long ago, there was no such thing as plastic.

So how did we get here?

And what can be done?

Miracle Material – heading 1

Life without plastic would be tough. That’s because plastic is used to make just about everything. Plastic is in our phones and toothbrushes and eyeglasses, in our cars and refrigerators. It’s in the bags that hold our favorite chips and the sneakers we wear to school.

But 100 years ago, plastic was not part of our lives. Back then, food was stored in glass jars. Toys and toothbrushes were made of wood. Eyeglasses were made of metal.

Then, in the 1930s, plastic as we know it today was developed. Cheap, lightweight, and very durable, plastic seemed like a miracle material.

And it was.

During World War II (1939-1945), factories turned to plastic to make wartime supplies. It was used in everything from airplane parts to parachutes. After the war, savvy business owners—having seen plastic’s wartime success—began producing all kinds
of plastic items. They made durable goods like chairs and radios, but also a dazzling array of disposable products. Plastic was so cheap that there seemed no reason not to toss it out after using it.

These new disposable items certainly made life more convenient. Plastic plates and utensils saved Americans from the drudgery of dishwashing, and plastic garbage bags made taking out the trash less messy. Plastic wrap made it easy to store leftovers, and plastic bags made trips home from the store a cinch.

At first, the idea of using something once and throwing it away seemed strange to some people. But eventually, this so-called throwaway culture became normal—expected even. And today, it’s the plastic stuff we use once—wrappers, bags, bottles—that is causing massive environmental damage.

**Throwaway Culture – heading 2**
The amount of plastic we throw away has hit an all-time high. In 1960, the average American use about 30 pounds of plastic each year. Today, it’s more than 300 pounds.

It’s easy to see why. The books we order online come packed in plastic. Our shampoo comes in plastic bottles and our toothpaste in plastic tubes. We even put our apples into plastic bags before we buy them.

But wait. What about recycling?

Turns out, very little single-use plastic gets recycled—either because it can’t easily be recycled (like plastic straws and bags) or because it doesn’t get sorted properly. Instead, it piles up in landfills, where it can leak harmful chemicals into the ground. Or it gets blown into the ocean. This is especially an issue in certain developing nations that do not have reliable trash collection or properly maintained landfills.

Now, more than 9 million tons of plastic trash end up in the ocean each year. The damage is devastating. Many creatures accidentally eat plastic thinking it is food. With stomachs full of plastic and no room for real food, these animals can starve. Other animals get dangerously tangled in plastic six-pack drink holders or suffocate inside plastic bags. Scientists estimate that more than 700 marine species have been harmed by plastic.

Can this terrible problem be solved? Yes. But only if we change our habits and reduce the amount of plastic we throw away.

Will you join the challenge?

**Can We Save Our Planet From Plastic? TEXT #2**
The problem of plastic trash can seem overwhelming, but many people around the globe are working to solve it. Here’s how you can join them.

Anna Du, 12, was walking along the beach one day in South Boston. She was collecting sea glass to make jewelry. But then, to her shock, she noticed something else scattered across the sand—something that wasn’t supposed to be there: tiny pieces of plastic. She picked one up. And then another. And another. It soon became clear that thousands of pieces of plastic trash littered this beautiful beach.

Anna was horrified. She knew she had to do something. But what?

This is a question that a growing number of people around the globe—from kids like Anna renowned scientists, corporate executives, and politicians—are asking. And they’ve come up with some pretty exciting ideas to solve the world’s plastic trash problem. Here’s what they are doing and how you can help.

**Tiny Pieces – heading 3**
After what happened on the beach that day, Anna decided to research the problem of plastic trash. She learned that in the ocean, sunlight, waves, and heat break down plastic into tiny pieces, from chips the size of a pinkie fingernail to bits so small they’re invisible to the naked eye. These pieces are called microplastics, and scientists estimate that trillions of them are scattered throughout our oceans.
Anna also learned that microplastics are very difficult to get rid of. They are often too small for humans to spot easily. What’s more, algae can grow on microplastics, which makes them blend in with other, natural particles in the ocean. This is what makes microplastics so dangerous for marine animals, many of which get sick or die after eating them.

Anna wanted to tackle the problem of detecting microplastics. So she decided to construct a robotic device that could do what humans couldn’t. Anna’s device uses a special infrared camera and different types of light to detect the presence of microplastics on the ocean floor. The lights spot colors in plastic that make it stand out from sand and plant life.

Ditch Plastic – heading 4

Of course, finding and removing plastic already in the ocean is only part of the solution to the problem. Experts say we must also seriously reduce the amount of plastic waste we create. To do this, many cities, states, and even entire countries are now passing laws banning certain plastic products. In the U.S., 349 cities, counties, and states have banned or taxed the use of plastic bags in stores. Thirty-two countries have plastic bag bans as well. Some cities, including Seattle, Miami Beach, and several cities in California have banned plastic straws in restaurants.

Businesses are joining in too. A new service called Loop is working to partner with companies that make foods, personal-hygiene products, and household goods. Loop will package and deliver items in reusable containers made of glass or metal instead of plastic. It works like this: When, say, your shampoo bottle is empty, someone from Loop will come pick up the used container and return it to the factory, where it will be cleaned, refilled, and sent out again.

What We Can Do – heading 5

New laws, business practices, and high-tech robots are not the only things that can make a difference. We can too. Indeed, there are many small changes we can make in our everyday lives to reduce the amount of plastic we throw away. Switching to a reusable water bottle instead of buying plastic ones, packing lunch in reusable containers, and giving up plastic utensils are just a few of the ways we can all help.

You can also be an advocate for change. In fact, several campaigns against disposable plastic products were started by students. In 2016, Bella Rossborough, then 12, helped pass a law that banned plastic bags in stores in her hometown of Kennebunk, Maine. In 2017, Shelby O’Neil, then 16, reached out to Alaska Airlines and convinced the company to stop using plastic straws. Last year, 12-year-old ChloeMei Espinosa convinced leaders of her school district in California to stop providing plastic straws in 33 school cafeterias.

There is no doubt that solving the world’s plastic crisis will be challenging. But the key to progress will be persistence. If we all follow Anna’s lead and take action, whether it’s by inventing a new technology or by reducing the amount of plastic we throw away each day, change will come.

AFTER Reading:

4. Complete the Synthesis chart with information from BOTH texts. On the back of this!

5. For EACH text use the following sentence starters to write a summary of each text. On your own paper!

Title: ________________________________ Topic: ______________________________

First, the author stated that…
This was important because…
Next, the author mentioned that…
Furthermore, the author indicated…
This was critical because…
Finally, the author suggested that…

6. Design your own poster to show others BOTH the problems AND solutions to our problem with plastic. Feel free to get colorful and use illustrations to get your ideas across. On your own paper! Can take a picture and paste here!
Synthesis

Directions: Answer the questions below using details from “The Problem of Plastic” and “Can We Save Our Planet From Plastic?”.

1. Jot down some reasons why plastic trash is a problem. For each reason, indicate which article the information came from.

2. Fill in the chart below with possible solutions to the plastic trash problem. For each solution, check a box in the second column to show whether it came from the article “Can We Save Our Planet From Plastic?” or is your own idea.

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<th>SOLUTION</th>
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<td>□ “Can We Save Our Planet From Plastic?”</td>
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