

NEWS BREAK

Article: How do you clean up a trash island twice the size of Texas?

Section: MAIN, A1

Sunday's News Break selects an article from **Sunday, September 9, 2018** of The Seattle Times print replica for an in-depth reading of the news. Read the selected article and answer the attached study questions.

You are encouraged to modify this lesson to fit the needs of your students. For example, some classrooms may be able to use this as a worksheet and others might need to ask and answer the questions in a small group or larger, class discussion.

Please be sure to preview all NIE content before using it in your classroom to ensure it is appropriate for all of your students.

Standards:

CCSS.ELA-Literacy.RI.4.1

- Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

CCSS.ELA-Literacy.RI.4.2

- Determine the main idea of a text and explain how it is supported by key details; summarize the text.

Objectives:

Students will talk about the current plastic situation in our oceans. They'll discuss how plastics and garbage impact our oceans and sea-life and what will happen if nothing is done? We'll discuss civic activism and whether they are willing to do their part to help in the plastic-reduction effort and what that would look like. They'll also debate whether they think consumers are receiving enough education about what's happening in our oceans and the problem surrounding plastics.

Pre-Reading Discussion:



- What do you think the article will be about?
- Are there clues in the pictures?
- What can you infer?

Vocabulary Building:

Read this sentence, what do you think the highlighted words mean using *context clues*? A **context clue** is a word or words that are hints and refers to the sources of information outside of words that readers may use to predict the identities and meanings of unknown words.

“The buoyant, U-shape barrier made of plastic and with a tapered 10-foot-deep screen, is intended to act like a coastline, trapping some of the 1.8 trillion pieces of plastic that scientists estimate are swirling in that **gyre** but allowing marine life to safely swim beneath it.”

Write your guess and then look up the definition and write it below your guess. How close did you come to the correct definition?

Gyre Guess:

Gyre Definition:

Comprehension Questions:

1. _____ million tons of plastic waste sink into the Pacific Ocean every year.
2. Engineers set to sea Saturday to deploy a trash-collection device to corral plastic litter floating between California and Hawaii in an attempt to clean up what?
3. The 2,000-foot-long floating boom was being towed from San Francisco to the Great Pacific Garbage Patch, an island of trash that’s how big?
4. The system was created by The Ocean Cleanup. Who is the founder and how did he become passionate about cleaning the oceans?
5. The buoyant, U-shape barrier made of plastic and with a tapered 10-foot-deep screen, is intended to act like a _____, trapping some of the 1.8 trillion pieces of plastic that scientists estimate are swirling in that gyre but allowing marine life to safely swim beneath it.
6. What will the cleanup system be outfitted with to allow it to communicate its position at all times?
7. How will they transport the trash back onto land? How long is that process expected to take?
8. What will they have to prove in order to scale up a fleet of systems?
9. Leonard said 9 million tons of plastic waste enter the ocean annually and a solution must be a multipronged approach. What does he suggest?
10. “If you don’t stop plastics from flowing into the ocean, it will be a Sisyphian task,” Leonard said. What is this Greek myth about?

Discussion Questions (small/large groups), Journal Prompts or Essay Questions:

- What do you think about the current plastic situation in our oceans? Does it concern you? Why or why not?
- How will plastics and garbage impact the oceans and sea-life if nothing is done?
- Are you willing to do your part in the effort? Have you already started? Do you ask for plastic straws when you get drinks or are at a restaurant? Why or why not?
- Do you use reusable bags when you go grocery shopping?
- What are you doing to play your part in reducing plastic use and waste?
- Do you think consumers are receiving enough education about what's happening in our oceans and the problem surrounding plastics? Why or why not?

The Ocean Cleanup, which has raised \$35 million in donations to fund the project, including from Salesforce.com Chief Executive Marc Benioff and PayPal co-founder Peter Thiel, plans to deploy 60 free-floating barriers in the Pacific Ocean by 2020. "One of our goals is to remove 50 percent of the Great Pacific Garbage Patch in five years," Slat said.

The free-floating barriers are made to withstand harsh weather and constant wear and tear. They will stay in the water for two decades and in that time collect 90 percent of the trash in the patch, he added.

- Is this an aggressive approach?
- Some scientists are skeptical (but hope it works) that they can achieve their goal, citing that they can clean, but more is pouring into it each year?

On Sept. 15, about 1 million volunteers around the world will collect trash from beaches and waterways as part of the Ocean Conservancy's annual International Coastal Cleanup. Volunteers last year collected about 10,000 tons of plastics worldwide in two hours.

- Would you be willing to help clean in your own community?
- Tell your fellow classmates, friends and family and meet at the nearest beach to clean-up on the 15th. Do your part to make a difference.

News Break is posted to the Web on Monday. Please share this NIE News Break program with other teachers. To sign-up for the print replica for your class, please [register on-line](#) or call 206/652-6290 or toll-free 1-888/775-2655. Copyright © 2018 The Seattle Times Company

Newsbreak Answer Key: September 9, 2018

Pre-Reading Discussion:

Answers will vary

Vocabulary Building:

Gyre: A whirl, spiral or vortex.

Comprehension Answers:

1. 9 million tons
2. The world's largest garbage patch in the heart of the Pacific Ocean.
3. Twice the size of Texas
4. An organization founded by Boyan Slat, 24, an innovator from the Netherlands. He became passionate about cleaning the oceans when he went scuba diving at age 16 in the Mediterranean Sea and saw more plastic bags than fish.
5. Coastline
6. Fitted with solar-power lights, cameras, sensors and satellite antennas, the cleanup system will communicate its position at all times, allowing a support vessel to fish out the collected plastic every few months and transport it to land, where it will be recycled, Slat said.
7. Shipping containers that become filled with the fishing nets, plastic bottles, laundry baskets and other plastic refuse scooped up by the system are expected to be back on land within a year, he said.
8. "We still have to prove the technology ... which will then allow us to scale up a fleet of systems," he said.
9. He suggests including stopping plastic from reaching the ocean and more education so people reduce consumption of single-use plastic containers and bottles.
10. The Greek myth of a task never completed.

Discussion Questions (small/large groups), Journal Prompts or Essay

Questions: Answers will vary