

Form 4: The Problem with Bottled Water

Reading

Reading 1: *The Problem with Bottled Water*
by Mark Acosta

Reading 2: *A Reply to Mark Acosta*
by Wendy Black

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Paragraph
Number ↓

Opinion:

The Problem with Bottled Water

by Mark Acosta

1 More than half of the people in the United States drink bottled water regularly. In general, bottled water is considered convenient because it is portable. But that convenience comes with problems and a high environmental cost. The problems include: pollution created during production and transportation of bottled water; injuries to marine life from discarded bottles; and ugly garbage dumps filled with empty bottles.

2 Plastic water bottles are typically made from crude oil. During their production, pollutants such as nickel, benzene, and ethylene oxide are released. These harm the environment and pollute the air we breathe. It takes 1.5 million barrels of oil to produce the plastic water bottles we use each year. Additionally, trucks release more pollutants and use gasoline when they transport bottled water to stores.

3 26 billion plastic bottles are made each year. That equals 30 million tons of plastic. Unfortunately, most end up in garbage dumps rather than recycling centers. It takes hundreds of years for a plastic bottle to decompose – to dissolve into the soil. The bottles that are in the garbage dumps today will be with us a long time.

*Plastic bottles*

4 Garbage dumps are often located near the ocean, and that is where many bottles wind up. In the ocean, sea turtles and other animals can mistake plastic bottles for their main food source, jellyfish. Eating plastic can injure or kill sea turtles as well as birds that feed in the ocean.

5 Across the United States, people can turn on sink faucets to get some of the cleanest, healthiest tap water on Earth. Almost all chemicals and impurities have been removed to make this drinking water clean and safe. It is also inexpensive. On average, a gallon of tap water costs a small fraction of one cent. Considering these facts, the obvious question is, “Why do Americans drink so much bottled water?”

6 Consumers in the United States feel bottled water is both safer and more convenient. The fact is that tap water is just as safe and tap water carried in a reusable container is just as convenient. Clearly, the advantages of bottled water are more imaginary than real.

7 It is time for major changes across the country. If every bottled water consumer in the U.S. made the switch to drinking tap water from reusable containers, the environment would be cleaner and safer for all living creatures. The percentage of plastic bottles that get recycled needs to rise as well. Currently only about 30 percent of plastic bottles make it to a recycling center. That means 70 percent wind up in garbage dumps!

8 It is important to communicate information about this environmental issue with others. Many people are simply unaware of the harm caused by this problem and are willing to change their behavior when they find out how the environment is being affected.

Paragraph
Number ↓

Letter from a reader:
A Reply to Mark Acosta
by Wendy Black

Dear Environment Today,

1 Recently you printed an article by Mark Acosta about all the problems that are caused by people drinking too much bottled water. I think Mr. Acosta was far too negative. Mr. Acosta makes it sound like people who use bottled water don't care about the environment. That's not true. Many people who use bottled water help protect the environment by recycling plastic bottles. The problems Mr. Acosta mentions are not as bad as he says, and there are some good reasons why people should drink bottled water.

2 First of all, many of the numbers he uses are very old. The number of plastic bottles being recycled is going up dramatically. Nearly every town in the United States has a plastic recycling program.

3 He also does not pay enough attention to the chemicals found in some tap water. The only way to avoid these chemicals is to drink bottled water.

4 Like many people, I prefer to drink bottled water. I always recycle my bottles and I care very much about the environment. Instead of switching to tap water, people just need to recycle.

-- ***Wendy Black, Cleveland, Ohio***

Form 4: The Problem with Bottled Water

Part 1

My Name: _____

My Partner's
Name(s): _____

Today's Date: _____

Directions:

In this activity you are going to read an article from an environmental magazine. The author of the article is **Mark Acosta**. Mr. Acosta wants to persuade you. He wants you to agree with him. Your job is to read the article and answer questions. Later, you will read a letter from a reader named **Wendy Black**. Ms. Black disagrees with Mark Acosta. In the end, you have to decide who you agree with.

Before you read...

Look at the article by Mark Acosta. Look at the title, the photo, and the first sentence of each paragraph.

What do you think Mark Acosta’s article is going to be about? Talk to your partner and finish the sentence below.

I think this article is going to be about: _____

_____.

While you read...

Now read **Mr. Acosta’s** article. While you read the article:

- Underline any words that you don’t know.
- Try to guess the meaning of the words from the context.

After you have finished reading...

Now you will work with your partner to answer questions. **You will write down your own answers, but discuss them with your partner.**

Tips for working together:

- Discuss the questions to make sure you understand them.
- Try to agree on the answers before you write them down.
 - **Remember: You can look back at the article at any time.**
- Ask your partner about things you don't understand.

When you are ready, go to the next page.



Directions: For the questions on this page, think about the **topic** of the article, the **main idea**, and the author’s **main argument** (his main point or message).

Warm-up:

Put a check next to the **topics** that were included in the article. Discuss with your partner to make sure you agree.

- Where to recycle plastic bottles
- How plastic bottles harm ocean animals
- How glass and plastic bottles are different
- How to stop using so much bottled water

- 1** What is the author Mark Acosta’s **main argument** in the article? Discuss with your partner and circle the best answer.
- A. Bottled Water is safer and more convenient than tap water.
 - B. People need to learn more about recycling plastic.
 - C. People should not use bottled water so much because it causes many problems.

- 2** Look at **paragraph 1** again. The author mentions **three problems** caused by using too much bottled water. Underline the three problems that the author describes.

More than half of the people in the United States drink bottled water regularly. Bottled water is safe and it is considered convenient because it is portable. But that convenience comes with problems and a high environmental cost. The problems include: pollution created during the production and transportation of bottled water; injuries to marine life from discarded bottles; and ugly garbage dumps filled with empty bottles.

Directions: For questions 3 – 13 you will need to understand **details** (specific information) from the article.

The paragraph below is a summary of paragraphs 2 and 3.

- Use the **ANSWER CHOICES** to complete the sentences.
- Write the letters of the correct answer choices in the blank spaces in the paragraph.
- You may look back at the article at any time.

ANSWER CHOICES

- A. garbage dumps B. plastic bottles C. pollutants
D. barrels of oil E. dissolve into the soil

3

Nickel, benzene, and ethylene oxide are examples of _____. They

4

are released into the air when _____ are made. Most plastic bottles

5

wind up in _____ where it takes them hundreds of years to decompose.

6

Decompose is another way of saying _____.

Directions: Mark Acosta uses many **numbers** to show how big the bottled water problem is.

- Answer the questions on this page with **numbers** from the article.
- You can either spell the number out (e.g., one) or write the number (e.g., 1).




7 How many barrels of oil are used to make plastic water bottles each year? (paragraph 2)

8 How many tons of plastic are used to make water bottles each year?
(paragraph 3)

9 What percentage (%) of plastic bottles end up in garbage dumps?
(paragraph 7)

Directions: For questions 10 and 11, decide whether the sentences are correct or incorrect based on the information in the article.

- If a sentence is correct, circle **Correct**.
- If a sentence is incorrect, circle **Incorrect** AND quote the article to explain why it is incorrect.
- **Two examples have been done for you.**

SENTENCES	ANSWERS
<p>Example:</p> <p><i>Ocean animals can be killed or injured by eating plastic that is floating in the water.</i></p>	<p>Correct  Incorrect</p>
<p>Example:</p> <p><i>An equal number of plastic bottles go to garbage dumps and recycling centers.</i></p>	<p>Correct  Incorrect</p> <p>The article says "Currently only about 30 percent of plastic bottles make it to a recycling center" </p>
<p>10</p> <p><i>If people switch from drinking bottled water to tap water, the environment will not change much.</i></p>	<p>Correct Incorrect</p>
<p>11</p> <p><i>People believe that bottled water is safer and more convenient than tap water.</i></p>	<p>Correct Incorrect</p>

Directions: For questions 12 and 13, look at the table below and decide if each sentence from Mark Acosta’s article expresses a **fact** or an **opinion**.

- Check (✓) “FACT” if the sentence expresses a fact.
- Check “OPINION” if the sentence expresses an opinion.
- **One example has been done for you.**

Example:

SENTENCES	FACT	OPINION
Paragraph 2: “The plastic in a typical water bottle is made from crude oil.”	✓	
12 Paragraph 4: “Garbage dumps are often located near the ocean, and that is where many bottles wind up.”		
13 Paragraph 7: “It is time for major changes across the country.”		



Directions: For questions 14 – 17, read the definition and write the word that goes with it. Use the **ANSWER CHOICES**.

- Hint: Use context clues to guess the definition of words you don't know.
- The paragraphs with the answer choices are written below the words.
- **One answer choice will not be used.**

ANSWER CHOICES

Portable (paragraph 1) reusable (paragraph 6) tap (paragraph 5) consumer (paragraph 6) currently (paragraph 7) major (paragraph 7)

DEFINITION	WORD
Example: A person who buys something	consumer 
14 Happening right now	
15 Can be used again	
16 An opening that water comes out of	
17 Can be carried from place to place	

Directions: First read the definitions of *Environment*, *Environmentalist*, and *Environmentalism* in the example table.

WORD	DEFINITION
<i>Environment:</i>	The natural world, including the land, air, and water
<i>Environmentalist:</i>	A person who works to protect the environment from pollution
<i>Environmentalism:</i>	The activity of working for the protection of the environment

Now look at the table below.

- For questions 18 and 19, draw lines from the words in the WORD column to their definitions in the DEFINITION column.
- **One example has been done for you.**

WORD		DEFINITION
Example: <i>Pollute:</i>	<input checked="" type="radio"/>	<input type="radio"/> A person or company that makes the environment dirty
18 <i>Pollutant:</i>	<input type="radio"/>	<input checked="" type="radio"/> To make the environment dirty or unhealthy.
19 <i>Polluter:</i>	<input type="radio"/>	<input type="radio"/> A material or substance that makes the environment dirty, such as a dangerous chemical

20 Read this sentence from paragraph 7. Then, choose the sentence that has the **closest meaning**.

If every bottled water consumer in the U.S. made the switch to drinking tap water from reusable containers, the environment would be cleaner and safer for all living creatures.

- A. People will not switch from bottled water to tap water until the environment becomes safer.
- B. People who use reusable containers do not realize that there are better choices.
- C. When people start using tap water instead of bottled water, there will be less pollution.
- D. People need to stop using so much water in order to help the environment.

21 The main verb in this sentence is underlined. What is the **subject** that goes with the main verb?

Many people who use bottled water help protect the environment by recycling plastic bottles.

- A. "bottled water"
- B. "people"
- C. "the environment"
- D. "who"

Directions: For questions 22 and 23, look at the table below. The QUESTION column has questions about bottled water. The PARAGRAPH NUMBER column has paragraph numbers where the information to answer the questions can be found.

- Draw a line to match each question with the paragraph where the answer can be found.
- **One line has been drawn for you.**

QUESTION		PARAGRAPH NUMBER
Example: <i>What would happen in the United States if people switched from bottled water to tap water?</i>	<input checked="" type="radio"/>	Paragraph 4
22 <i>How does plastic harm ocean animals?</i>	<input type="radio"/>	Paragraph 6
23 <i>What are some beliefs people have about bottled water?</i>	<input type="radio"/>	Paragraph 7

Directions: The graphic organizer below shows the author’s argument. Some parts of the graphic organizer are empty.

- For questions 24 – 26, use the ANSWER CHOICES to fill in the blank spaces.
- **One answer choice will not be used!**

- | ANSWER CHOICES |
|--|
| A. Use tap water in reusable containers |
| B. Recycle more of the plastic bottles we use |
| C. Tap water costs much less than bottled water |
| D. Plastic bottles wind up in ugly garbage dumps |

Using too many plastic water bottles causes these three problems:

Problem 1: Pollution is released into the air when bottles are made.

Problem 2:
24 _____

Problem 3: Ocean life is harmed by plastic.

But, if we try these three solutions:

Solution 1:
Communicate information about this issue

Solution 2:
25 _____

Solution 3:
26 _____

... We can improve the environment.



Before you go on, read Wendy Black's letter with your partner.

Directions: Wendy Black disagrees with Mark Acosta. What **reasons** does Ms. Black mention for preferring to drink bottled water?

- Write a check (✓) under **YES** if the reason is mentioned by Ms. Black
- Write a check under **NO** if it is not mentioned by Ms. Black.

REASONS	YES	NO
27 Bottled water tastes better than tap water.		
28 Sometimes tap water contains chemicals.		
29 The number of plastic bottles being recycled is increasing.		

Directions: In questions 30 and 31, think about what is **probably true** based on what you read in Mr. Acosta’s article. Discuss with your partner to choose the best answer.

30 Based on what you read in Mr. Acosta’s article, which of these projects would he **probably** support? Circle just one answer.

- A. Giving bottled water to student athletes.
- B. Giving free reusable water bottles to high school students.
- C. A television program about chemicals in tap water.
- D. A plan to lower the price of bottled water.

31 Based on what you read in Mr. Acosta’s article, which statement about Mark Acosta is **probably true**? Circle just one answer.

- A. Mr. Acosta cares about keeping the environment clean and safe.
- B. Mr. Acosta goes to the recycling center every day.
- C. Mr. Acosta is worried about pollutants in tap water.

Directions: You have read an article and a letter. Each author made an argument about bottled water.

- Choose the author who you agree with more.
- Use **specific information from what you read** to explain why you think their argument was the strongest.

32

Who do you agree with more about bottled water?

- I agree with Mark Acosta more.
- I agree with Wendy Black more.

Now write a paragraph to explain your choice.
Remember to use specific reasons from the articles you have read.

Form 4: The Problem with Bottled Water

Part 2

My Name: _____

Today's Date: _____

Directions: When you worked on Part 1 of this activity you worked with a partner. This time, you are going to work **by yourself**. Read the first article, *The Problem with Bottled Water* by Mark Acosta. Questions 1 – 10 ask about the first article **only**.

- Circle the letter (A, B, C, or D) to show your answers.
- Each question has only **one answer**.
- You may look back at the article at any time.
- **You must answer the questions by yourself.**

1 What is the **main reason** Mark Acosta wrote his article?

- A. To persuade people not to buy bottled water
- B. To persuade people to use bottles that can be recycled
- C. To teach people about how plastic bottles are made
- D. To compare the cost of bottled water and tap water

2 Read this sentence from paragraph 1. Choose the word that is closest in meaning to “**discarded**.”

*The problems include: pollution created during the production and transportation of bottled water, injuries to marine life from **discarded** bottles, and ugly garbage dumps filled with empty bottles.*

- A. Moving
- B. Broken
- C. Gathered together
- D. Thrown out

3 Choose the word that is the best fit for the sentence below.

Factories that make plastic bottles _____ the air when they release different types of chemicals.

- A. Pollution
- B. Pollute
- C. Pollutant
- D. Polluter

4 Read these sentences from paragraph 2. Which word does “**These**” refer to?

*Plastic water bottles are typically made from crude oil. During their production, pollutants such as nickel, benzene, and ethylene oxide are released. **These** harm the environment and pollute the air we breathe. It takes 1.5 million barrels of oil to produce the plastic water bottles we use each year.*

- A. Water bottles
- B. Crude oil
- C. Pollutants
- D. Barrels of oil

5 Read this sentence from paragraph 7. Then, choose the sentence that has the closest meaning.

Many people are simply unaware of the harm caused by this problem and are willing to change their behavior when they find out how the environment is being affected.

- A. People are stuck in their habits and cannot change.
- B. People only care about environmental problems when their health is affected.
- C. It is difficult to spread the news about problems caused by using too much bottled water.
- D. If people knew about the problems caused by using too much bottled water, they might change their habits.

- 6 Why does the author include information in paragraph 3 about how long it takes for a plastic bottle to decompose?
- A. To give details about the process that turns a plastic bottle into soil.
 - B. To show that garbage dumps will be a problem for a long time.
 - C. To show the problems faced by ocean animals.
 - D. To show the large number of bottles that are in garbage dumps.

- 7 What does the author **imply** in paragraph 5? (When you *imply* something, you *suggest* it without saying it plainly.)

Across the United States, people can turn on sink faucets to get some of the cleanest, healthiest tap water on Earth. Almost all chemicals and impurities have been removed to make this drinking water clean and safe. It is also inexpensive. On average, a gallon of tap water costs a small fraction of one cent. Considering these facts, the obvious question is, "Why do Americans drink so much bottled water?"

- A. There is no good reason to prefer bottled water.
- B. People believe that bottled water is expensive.
- C. Bottled water and tap water cost about the same.
- D. Water prices in the United States differ from other parts of the world.

- 8 What does the author say about the harm caused by Americans' use of bottled water?
- A. It cannot be changed.
 - B. It is something many people don't know about.
 - C. It only hurts ocean animals, like sea turtles.
 - D. It affects more than 26 billion people.

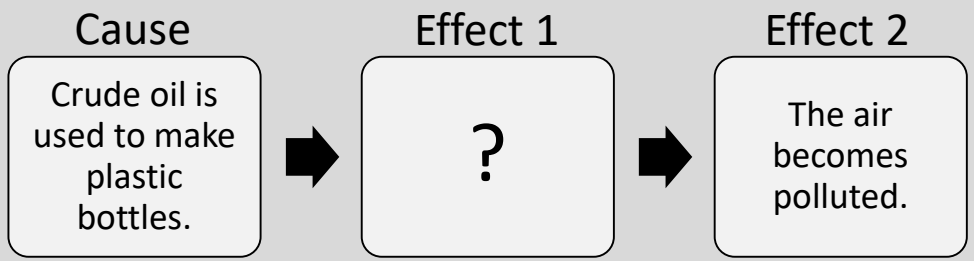
9

Which of these statements would Mark Acosta **probably** say to Wendy Black?

- A. "Bottled water tastes better than tap water."
- B. "You should try using reusable bottles."
- C. "Recycling centers cause pollution and harm the environment."
- D. "The price of bottled water is getting lower."

10

The graphic organizer below shows the information in paragraph 2. Paragraph 2 describes how plastic bottles are made. Choose the sentence that fits in the blank in the graphic organizer.



- A. Ocean animals mistake plastic bottles for food.
- B. Plastic bottles begin to decompose.
- C. Different types of pollutants are released.
- D. Millions of bottles are left in garbage dumps.

Directions: Now read the letter from **Wendy Black: A Reply to Mark Acosta**.

- **Questions 11 and 12 ask about the letter only.**

11 What is the **main idea** in Wendy Black’s letter?

- A. Sometimes tap water can be dangerous.
- B. Bottled water is healthier for you than tap water.
- C. Every town in the United States now has a recycling program.
- D. It is possible to use bottled water and still care for the environment.

12 What does Wendy Black say about Mark Acosta’s article?

- A. It does not mention pollution problems outside the United States.
- B. It is too negative and ignores the good news about recycling.
- C. It does not mention the taste of tap water
- D. It ignores the problems of water pollution and littering.

Directions: Questions 13 and 14 ask about **both** articles together.

13 On what point would Mark Acosta and Wendy Black probably **NOT** agree?

- A. Plastic bottles can harm ocean animals.
- B. Plastic bottles are made from crude oil.
- C. 30 percent of plastic bottles are recycled.
- D. 26 billion plastic bottles are made each year.

14 What characteristic of **tap water** is mentioned by both Wendy Black **AND** Mark Acosta?

- A. The price of tap water
- B. The way tap water is transported
- C. The way tap water tastes
- D. The chemicals found in tap water