

Name: _____ Date: _____

Go to Scope
Online to listen
to the words
and definitions
read aloud!

Paired Texts Vocabulary

"The Great Stink"

1. **epidemic (ep-ih-DEM-ik)** *noun*; An epidemic is a rapid outbreak of disease, when the disease spreads quickly and affects many people at the same time. If a few people in your town get the flu, that is not an epidemic. But if hundreds of people in your town get the flu in the same week, that is an epidemic.
2. **fertilizer (FUR-tl-ahy-zer)** *noun*; The adjective *fertile* (FUR-tl) is used to describe land that is able to support the growth of many plants or crops. Fertilizer is a substance that is added to soil, such as manure or a chemical mixture, to make the soil more fertile—to give it any nutrients it needs to help plants grow better.
3. **intricate (IN-trih-kit)** *adjective*; Something that is intricate is very complicated or detailed. A car engine has an intricate design, with many parts that are connected in complex ways. A mystery novel with an intricate plot might be difficult to follow at first.
4. **putrid (PYOO-trid)** *adjective*; *Putrid* means "rotting and giving off an awful smell." It can also mean "extremely horrible or evil."
5. **treatment plant (TREET-muhnt plant)** *noun*; A treatment plant is a facility where wastewater (water that has been used, such as in a sink, shower, or toilet) is cleaned so that it is not harmful to the environment or people's health.

Here's how it works: Water from sinks, showers, toilets, etc., flows underground through a system of pipes to the treatment plant. At the treatment plant, the water goes through many stages of cleaning—screens and filters might remove solid waste, while a chemical like chlorine might be used to kill bacteria. By the end of the treatment, water is clean enough to be reused or safely discharged into a stream or river.

"Toilets of the Future"

1. conventional (kuhn-VEN-shuh-nl) *adjective*; Something that is conventional is common, ordinary, and follows the usual or widely accepted way of doing things. A conventional wedding might take place in a church or temple with everyone wearing fancy clothes. An unconventional wedding might take place underwater with everyone wearing scuba gear.

2. developing country (dih-VEL-uh-ping KUHN-tree) *noun*; A developing country is one in which most citizens are poor and work as farmers, and where there are not a lot of factories and other businesses to produce or provide products and services. Poor sanitation, hunger, and a lack of access to education are among the challenges people in developing countries often face.

3. organic (awr-GAN-ik) *adjective*; As it is used in the article, *organic* means "relating to or coming from living things." Decaying leaves, cow manure, and rotting vegetables are all examples of organic matter.

Organic can also mean "grown or made without the use of artificial chemicals." At the grocery store, for example, you might see that some apples are labeled as organic. This means that no pesticides or chemical fertilizers were used to grow them.

Directions: Below or on the back of this page, list any other words from the articles whose definitions you are not sure about. For each word, use context clues to try to figure out the meaning. Then look up the word in a few different dictionaries. Discuss the meaning of the word with your teacher or another adult. Then write a definition for the word and one example sentence.

Paired Texts Vocabulary Practice

Directions: Choose the best answer to each question below.

1. Which of these books is about an epidemic?

- Ⓐ *Yellow Fever: The story of how a disease spread by mosquitoes sickened an entire city in 1793*
- Ⓑ *Food Safety in the Kitchen: Understanding bacteria and how to prevent food poisoning*

2. Which person is more likely to use fertilizer in their line of work?

- Ⓐ a farmer
- Ⓑ a car mechanic

3. Which item is organic?

- Ⓐ a banana peel
- Ⓑ a plastic bag

4. Which would most people agree has a putrid smell?

- Ⓐ roses in bloom
- Ⓑ rotting fish

5. Which puzzle is intricate?

- Ⓐ one with 15 pieces that teaches toddlers basic shapes
- Ⓑ one with 1,000 pieces that creates a dazzling, complex, and colorful pattern

Directions: Briefly respond to each prompt.

6. Describe a conventional way that you might greet someone.

7. Some waste bins are for organic material only. What is an example of something you could put in this type of bin?

8. Why are water treatment plants important?

9. If you find a putrid sandwich at the bottom of your locker, what should you do with it?

10. Is the United States a developing country? Explain.

Name: _____ Date: _____

Close-Reading Questions

"The Great Stink"

1. How does author Allison Friedman draw readers into her article? (author's craft)
2. What factors contributed to the 1858 sewage crisis in London? (key ideas and details)
3. How did a lack of scientific knowledge affect human health in 19th-century England? How did the construction of London's sewer system change people's understanding of how disease can spread? (cause and effect)
4. Describe Friedman's tone in the final section. What words or phrases help create this tone? (tone)

Name: _____ Date: _____

Close-Reading Questions

"Toilets of the Future"

1. In the introduction, author Mackenzie Carro poses a series of questions. What purpose do these questions serve? (author's craft)
2. Something innovative is new, advanced, and creative. What makes the toilets Carro presents innovative? (supporting details)
3. What is the relationship between water and disease? (key ideas)

Name: _____ Date: _____

Critical-Thinking Questions

"The Great Stink" and "Toilets of the Future"

1. Consider the innovations discussed in "The Great Stink"—the flush toilet and sewer systems. What do they teach us about how innovation influences our lives?
2. How can a crisis help lead to important change?
3. In what ways, if any, do you think differently about water and sanitation after reading these articles?

Name: _____ Date: _____

Preparing to Write: Applying a Quote

Directions: Answer the questions below using details from "The Great Stink" and "Toilets of the Future." When you are finished, you can use your answers to help you respond to the writing prompt on page 21.

1. Consider the expression "Necessity is the mother of invention." What does this mean? Rewrite this expression in your own words.
2. Fill in the chart below and on the next page with information from "The Great Stink" and "Toilets of the Future." Be sure to include the page numbers for where you found the information.

"The Great Stink"	
Sanitation Needs and Challenges	Responses to Sanitation Needs and Challenges

Chart
continues
on page 2

"Toilets of the Future"	
Sanitation Needs and Challenges	Responses to Sanitation Needs and Challenges

Name: _____ Date: _____

Paired Texts Quiz

Directions: Read “The Great Stink” and “Toilets of the Future.” Then answer the questions below.

1. Which was NOT a contributing factor to the 1858 sewage crisis in London?
 - (A) rapid population growth
 - (B) multiple outbreaks of cholera
 - (C) a decreased demand for night soil
 - (D) the introduction of flush toilets
2. The way people disposed of human waste in 19th-century London was dangerous because
 - (A) it filled the air with germs.
 - (B) it polluted drinking water with deadly bacteria.
 - (C) it put night soil men out of business.
 - (D) the strong odor made people nauseous.
3. Which line from “The Great Stink” supports the answer to question 2?
 - (A) “Londoners weren’t just disgusted by the stink—they were terrified.” (pp. 18-19)
 - (B) “These cesspools were usually 6 feet deep and four feet wide.” (p. 18)
 - (C) “Climate change is triggering heavier storms that overload pipes with rainwater.” (p. 20)
 - (D) “Poop is crawling with germs that can cause dozens of diseases, including cholera.” (p. 19)
4. On page 19, author Allison Friedman writes that flush toilets were “all the rage” and “status symbols.” She means that having a flush toilet
 - (A) was wildly popular, showed that you had money, and impressed others.
 - (B) lowered your risk of contracting cholera.
 - (C) required a large amount of water to flush.
 - (D) made night soil men’s jobs easier.
5. The main purpose of “The Great Stink” is to _____; whereas the main purpose of “Toilets of the Future” is to _____.
 - (A) explain how flush toilets work; educate readers about water-related diseases
 - (B) teach readers about cholera; introduce readers to the tiger worm
 - (C) detail a sewage crisis that changed history; spotlight possible solutions to today’s sanitation challenges
 - (D) caution readers about the possibility of a new sewage crisis; convince readers to compost
6. Which TWO ideas are supported by both “The Great Stink” and “Toilets of the Future”?
 - (A) Human understanding of disease has changed.
 - (B) Access to clean water is important.
 - (C) Some U.S. towns are running out of water.
 - (D) Aging sewer systems must be dealt with.

Constructed-Response Questions

Directions: Write your answers in a well-organized response.

7. Consider the following claim: *The 1858 sewage crisis in London changed the world.* Support this claim using details from “The Great Stink.”
8. Compare conventional sewer systems with the toilets described in “Toilets of the Future.” Explain how they are similar and how they are different. Support your answer with text evidence.

Name: _____ Date: _____

Paired Texts Quiz

Directions: Read “The Great Stink” and “Toilets of the Future.” Then answer the questions below.

- In the 1800s, dealing with human waste became a much bigger problem for London. One reason is that**
 - factories were filling the air with soot.
 - London’s population more than doubled.
 - many people had died in cholera outbreaks.
 - heavier storms overloaded pipes.
- The way people disposed of human waste in 19th-century London was dangerous because**
 - it filled the air with germs.
 - it polluted drinking water with deadly bacteria.
 - it put night soil men out of business.
 - the strong odor made people nauseous.
- Which line from “The Great Stink” supports your answer to question 2?**
 - “Londoners weren’t just disgusted by the stink—they were terrified.” (pp. 18-19)
 - “These cesspools were usually 6 feet deep and 4 feet wide.” (p. 18)
 - “Climate change is triggering heavier storms that overload pipes with rainwater.” (p. 20)
 - “Poop is crawling with germs that can cause dozens of diseases, including cholera.” (p. 19)
- On page 19, author Allison Friedman writes that London’s leaders “passed a law mandating the construction of a new sewer system.” Based on context clues, what does the word *mandate* mean?**
 - to officially require something
 - to give consideration to
 - to prevent someone from doing something
 - to put forward a plan or intention
- The main purpose of “Toilets of the Future” is to**
 - teach readers about tiger worms.
 - warn readers about polluted water.
 - spotlight possible solutions to today’s sanitation challenges.
 - discuss the benefits of composting.
- The three toilets presented in “Toilets of the Future” all _____. (Choose TWO answers.)**
 - use heat to destroy bacteria
 - convert human waste into a resource
 - transform solid waste into plant fertilizer
 - require neither water nor sewers

Constructed-Response Questions

Directions: Write your answers in a well-organized response.

- How did the Great Stink change people’s understanding of disease? Use text evidence from “The Great Stink” to support your answer.
- What is one way that conventional sewer systems and the toilets described in “Toilets of the Future” are different? Support your answer with text evidence.

Name: _____ Date: _____

Central Ideas and Details

A central idea of a text is one of the main points the author is making.

(Sometimes a central idea is called a main idea.)

A central idea can always be supported with details from the text.

Directions: Follow the prompts below to explore the central ideas and supporting details in "The Great Stink."

1. Reread the section "The Problem of Poop." Which statement below BEST expresses a central idea of this section?

- Ⓐ Human waste can be used as fertilizer.
- Ⓑ At the time of the Great Stink, London was home to 2 million people.
- Ⓒ Finding ways to dispose of human waste has been a challenge for a long time.
- Ⓓ Flush toilets caused the Great Stink.

2. Read a central idea of the article in the box below. Then read the lines from the article listed under it. Which detail does NOT support the central idea?

Central Idea:
In the past, unsafe sanitation caused major health problems in London.

- Ⓐ "Over the past 50 years, tens of thousands of people have died from drinking the polluted water of the River Thames." (p. 17)
- Ⓑ "London had already suffered three major cholera epidemics. More than 30,000 people had died." (p. 19)
- Ⓒ "Government leaders, who worked in a building beside the Thames, were seen fleeing with tears streaming from their eyes." (p. 18)

I chose _____ because _____

3. Read the details from the section "A New Crisis" listed below. In the box, write a central idea that these details support.

Central idea:

Detail 1: "Under these pressures, the original sewers—once a dazzling modern wonder—have begun to leak, break, clog, and overflow." (p. 20)

Detail 2: "In some places, waste has been oozing into the drinking water supply." (p. 20)

Detail 3: "Over the years, however, these antique sewers have started to fall apart." (p. 20)

Name: _____ Date: _____

Central Ideas and Details

A central idea of a text is one of the main points the author is making.

(Sometimes a central idea is called a main idea.)

A central idea can always be supported with details from the text.

Directions: Follow the prompts below to explore the central ideas and supporting details in "The Great Stink."

1. Read a central idea of the section "The Problem of Poop" stated in the box below. Then check the boxes next to the THREE details that best support the central idea.

Central Idea:

Figuring out how to dispose of human waste is not a new challenge.

- ☐ A. "An intricate web of stone sewers lay underneath the ancient city of Rome to take waste out of the city." (p. 18)
- ☐ B. "When [cesspools] were full, a 'night soil man' would shovel out the waste and sell it to farmers to use as fertilizer." (p. 18)
- ☐ C. "But in the 19th century, London—and all of England—was changing." (p. 18)
- ☐ D. "These cesspools were usually 6 feet deep and 4 feet wide." (p. 18)
- ☐ E. "In China some 1,000 years ago, sewage was pumped through dome-shaped tunnels." (p. 18)

2. Read the details from the article listed below. In the box, complete the central idea that these details support.

Central Idea:

In the past, unsafe sanitation in London _____

Detail 1: "Over the past 50 years, tens of thousands of people have died from drinking the polluted water of the River Thames." (p. 17)

Detail 2: "London had already suffered three major cholera epidemics. More than 30,000 people had died." (p. 19)

Name: _____ Date: _____

Finding and Using Text Evidence

Directions: Read “The Great Stink” and “Toilets of the Future.” Then complete the activity below.

1. Imagine that you are writing a paragraph explaining how a lack of scientific knowledge affected human health in England in the 1800s.

A. Which of the following would be the BEST topic sentence for your paragraph?

- Ⓐ People in England in the 1800s did not understand how diseases spread.
- Ⓑ Due to a lack of scientific knowledge about diseases and how they spread, people in England didn’t use safe sanitation practices, which exposed the population to illness.
- Ⓒ London suffered three major cholera epidemics in the 1800s.

B. Which information from “The Great Stink” supports the sentence you chose in part A?

- Ⓐ “More than 30,000 people had died.” (p. 19)
- Ⓑ “To avoid a goopy mess, people began connecting their toilets directly to the sewers—and therefore to the river.” (p. 18)
- Ⓒ “Poop is crawling with germs that can cause dozens of diseases, including cholera.” (p. 19)

C. Which of the following BEST explains why the text evidence you chose in part B is relevant?

- Ⓐ It provides an example of people in England practicing unsafe sanitation because they were unaware that certain diseases spread through water.
- Ⓑ It shows how people in England were affected by disease.
- Ⓒ It explains why safe sanitation is so important.

2. Choose the ONE piece of text evidence from "The Great Stink" that best supports the statement below. Then complete the sentence to explain your choice.

The 19th century was a time of rapid change in London.

- Ⓐ "Kids stand on street corners, selling newspapers and cigars and fried fish." (p. 17)
- Ⓑ "When they were full, a 'night soil man' would shovel out the waste and sell it to farmers to use as fertilizer." (p. 18)
- Ⓒ "Between 1800 and 1850, London's population more than doubled." (p. 18)

I chose ____ because _____

3. A. Choose the THREE pieces of text evidence from the "The Great Stink" and "Toilets of the Future" that BEST support the statement below.

Dealing with human waste continues to be a challenge today.

- Ⓐ "Today, 4.5 billion people around the world do not have access to safe sanitation—that is, a way to dispose of human waste that won't harm people or the environment." (p. 20)
- Ⓑ "According to the World Health Organization, hundreds of thousands of people die every year from diseases related to unsafe sanitation." (p. 20)
- Ⓒ "Under these pressures, the original sewers—once a dazzling modern wonder—have begun to leak, break, clog, and overflow." (p. 20)
- Ⓓ "In 1866, one final cholera epidemic struck London, but it was limited to a neighborhood that had not yet been connected to the new sewer system." (p. 19)
- Ⓔ "Soon there was too much night soil to collect and not enough farmers to buy it." (p. 18)

B. Select one piece of INCORRECT evidence from above and explain why it does NOT support the statement.

Evidence ____ does not support the statement because _____

4. Choose the paragraph that correctly uses text evidence from “The Great Stink” in the form of a quotation.

- Ⓐ America may be approaching a new sewage crisis. In the article “The Great Stink,” author Allison Friedman explains “The original sewers—once a dazzling modern wonder—have begun to leak, break, clog, and overflow” (20). In other words, America’s sewers are beginning to fail.
- Ⓑ America may be approaching a new sewage crisis. In the article “The Great Stink,” author Allison Friedman explains “The original sewers—once a dazzling modern wonder—have begun to leak, break, clog, and overflow” (20).
- Ⓒ America may be approaching a new sewage crisis. “The original sewers—once a dazzling modern wonder—have begun to leak, break, clog, and overflow.” In other words, America’s sewers are beginning to fail.

Explain why the two answers you did NOT choose are incorrect: _____

5. Choose the paragraph that correctly uses text evidence from “Toilets of the Future” in the form of a paraphrase.

- Ⓐ Toilets in the future will not only help us dispose of waste safely, but they’ll also put our waste to work. There are several new toilets that use human waste to generate electricity and make fertilizer. In other words, new toilets will use our waste as to perform other important tasks.
- Ⓑ Toilets in the future will not only help us dispose of waste safely, but they’ll also put our waste to work. In the article “Toilets of the Future,” author Mackenzie Carro describes several new toilets that can use human waste to generate electricity and create fertilizer (21). In other words, new toilets will use our waste as a resource to perform other important tasks.
- Ⓒ Toilets in the future will not only help us dispose of waste safely, but they’ll also put our waste to work. In the article “Toilets of the Future,” author Mackenzie Carro writes that one new toilet that has been created “generates enough electricity to power the toilet, as well as other small devices—like your smartphone” (21). In other words, new toilets will use our waste to perform other important tasks.

Explain why the two answers you did NOT choose are incorrect: _____

- a topic sentence
- at least one piece of text evidence in the form of a paraphrase or a direct quotation
- a sentence that states how that evidence supports your central idea

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Name: _____ Date: _____

Finding Text Evidence

Directions: Read “The Great Stink” and “Toilets of the Future.” Then complete the activity below.

- 1. Choose the TWO pieces of text evidence from “The Great Stink” and “Toilets of the Future” that best support the statement below.**

STATEMENT:

Unsafe sanitation is a major health problem.

- Ⓐ “People miles away threw up after catching a whiff on the wind.” (p. 18)
- Ⓑ “London had already suffered three major cholera epidemics. More than 30,000 people had died.” (p. 19)
- Ⓒ “Overloaded with human waste, the Thames grew thick, brown, and foul.” (p. 18)
- Ⓓ “According to the World Health Organization, hundreds of thousands of people die every year from diseases related to unsafe sanitation.” (p. 20)

-
- 2. Choose the ONE piece of text evidence from “The Great Stink” that best supports the statement below. Then complete the sentence to explain your choice.**

STATEMENT:

The 19th century was a time of rapid change in London.

- Ⓐ “Kids stand on street corners, selling newspapers and cigars and fried fish.” (p. 17)
- Ⓑ “When they were full, a ‘night soil man’ would shovel out the waste and sell it to farmers to use as fertilizer.” (p. 18)
- Ⓒ “Between 1800 and 1850, London’s population more than doubled.” (p. 18)

I chose ____ because _____

3. Read the lines below from “The Great Stink” and “Toilets of the Future.” Then write a statement that they all support.

- Ⓐ “Today, 4.5 billion people around the world do not have access to safe sanitation—that is, a way to dispose of human waste that won’t harm people or the environment.” (p. 20)
- Ⓑ “According to the World Health Organization, hundreds of thousands of people die every year from diseases related to unsafe sanitation.” (p. 20)
- Ⓒ “Under these pressures, the original sewers—once a dazzling modern wonder—have begun to leak, break, clog, and overflow.” (p. 20)

STATEMENT:

Note: *Scope* does not accept Google Docs. If you are e-mailing your entry, please send a .pdf or .doc file.

The Great Stink Contest

Consider the expression "Necessity is the mother of invention."

What does that mean? How does it apply to sanitation challenges past and present? Answer both questions in a well-organized essay.

Support your ideas with evidence from both articles.

Five winners will get *How We Got to Now* by Steven Johnson.

Entries will be judged on:

- ⇒ use of information from both texts
- ⇒ clarity and good organization
- ⇒ use of supporting text evidence
- ⇒ grammar, spelling, and punctuation

My name: _____

My home phone number: _____ My grade: _____

My teacher's name: _____ My teacher's e-mail: _____

School name: _____

School address: _____

City: _____ State: _____ ZIP: _____

School phone number: _____

My parent or legal guardian consents
to my participation in this contest.

Parent's or legal guardian's signature: _____

Include this form with your entry and send both to: scopemag@scholastic.com
or mail them to: The Great Stink Contest, c/o *Scope*, P.O. Box 712, New York, NY 10013-0712

ENTRIES MUST BE RECEIVED BY MAY 20, 2020!