

NOT BORING MEDIA

THE DOCTOR WHO DRANK BACTERIA

High-Interest Nonfiction Reading Passage

WHAT'S INCLUDED

- ✓ Reading Passage ✓ Comprehension Questions
- ✓ Answer Key ✓ Teacher Guide

GRADES 4-6 • LEXILE ~750L • DOK LEVELS 1-4

Reading they'll actually do.

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WHAT'S INCLUDED

- ✓ High-interest nonfiction reading passage (300-400 words)
- ✓ 6 comprehension questions spanning DOK levels 1-4
- ✓ Complete answer key with explanations
- ✓ Teacher guide with standards, pacing, and extensions

Questions or feedback? Leave a review or message us through TPT!

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THE DOCTOR WHO DRANK BACTERIA

In 1984, an Australian doctor named Barry Marshall was desperate to prove his theory. He believed that stomach ulcers were caused by bacteria, not stress or spicy food as everyone assumed. But no one would listen. So he did something drastic: he drank a beaker full of dangerous bacteria.

Marshall and his research partner Robin Warren had discovered a spiral-shaped bacterium called *Helicobacter pylori* living in the stomachs of ulcer patients. They were convinced this bacterium—not lifestyle factors—caused the painful sores that affected millions of people worldwide.

The medical establishment dismissed them. Everyone 'knew' that bacteria couldn't survive in the acidic environment of the stomach. Stress, they insisted, was the real culprit. Drug companies had no interest in a simple antibiotic cure when they were making billions selling medications that only treated symptoms.

Frustrated by years of rejection, Marshall decided to experiment on the only subject he could: himself. He drank a petri dish of *H. pylori* bacteria without telling his wife (she would have stopped him). Within days, he developed severe stomach inflammation. His breath turned foul, he vomited frequently, and a biopsy confirmed his stomach was now full of the bacteria he had swallowed.

Marshall then took antibiotics and cured himself. He had proved his theory using the most convincing evidence possible—his own body.

The medical world slowly began to accept the truth. By the 1990s, treating ulcers with antibiotics became standard practice. Millions of people who had suffered for years could finally be cured with a simple, inexpensive treatment.

In 2005, Marshall and Warren received the Nobel Prize in Medicine for their discovery. What had been mocked as impossible became one of the most important medical breakthroughs of the century.

'Everyone was against me,' Marshall recalled. 'But I knew I was right, and I was willing to do whatever it took to prove it.'

Word Count: 313 | Lexile: ~750L | Grades 4-6 | Source: Nobel Prize Organization

COMPREHENSION QUESTIONS

Name: _____ Date: _____

1 What did most doctors believe caused stomach ulcers before Marshall's discovery?

- A) Bacteria
- B) Stress and spicy food
- C) Genetic factors
- D) Lack of exercise

2 What is the name of the bacterium Marshall discovered?

- A) E. coli
- B) Salmonella
- C) Helicobacter pylori
- D) Streptococcus

3 Why did Marshall experiment on himself?

- A) It was required by law
- B) He enjoyed taking risks
- C) No one else would believe him or volunteer
- D) His wife suggested it

4 Why did drug companies resist Marshall's discovery?

- A) They didn't believe his research
- B) They made money selling symptom treatments, not cures
- C) Antibiotics were too expensive
- D) They had never heard of him

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What does Marshall's story reveal about how scientific progress often happens?

- A) New ideas are always immediately accepted
- B) Drug companies lead most medical discoveries
- C) New ideas often face resistance before being accepted
- D) Self-experimentation is required for all discoveries

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Based on this passage, what factors can slow the acceptance of important medical discoveries?

- A) Only scientific evidence matters in medicine
- B) Established beliefs, financial interests, and resistance to change can delay acceptance
- C) All doctors immediately embrace new research
- D) Drug companies always support the best treatments

ANSWER KEY

The Doctor Who Drank Bacteria

1. B) Stress and spicy food

DOK 1 — Recall. The passage states Marshall wanted to prove ulcers were caused by bacteria, 'not stress or spicy food as everyone assumed.'

2. C) Helicobacter pylori

DOK 1 — Recall. The passage identifies 'a spiral-shaped bacterium called *Helicobacter pylori*.'

3. C) No one else would believe him or volunteer

DOK 2 — Inference. The passage explains he was 'frustrated by years of rejection' and 'decided to experiment on the only subject he could: himself.'

4. B) They made money selling symptom treatments, not cures

DOK 2 — Inference. The passage states: 'Drug companies had no interest in a simple antibiotic cure when they were making billions selling medications that only treated symptoms.'

5. C) New ideas often face resistance before being accepted

DOK 3 — Analysis. Marshall's correct theory was rejected for years by the establishment. Only dramatic proof changed minds, showing that scientific progress often requires overcoming resistance to new ideas.

6. B) Established beliefs, financial interests, and resistance to change can delay acceptance

DOK 4 — Extended Thinking. The passage shows multiple barriers: established beliefs ('everyone knew' bacteria couldn't survive), financial interests (drug companies profiting from symptom treatments), and general resistance to changing accepted practices.

TEACHER GUIDE

The Doctor Who Drank Bacteria

STANDARDS ALIGNMENT

- CCSS.ELA-LITERACY.RI.4.1 — Refer to details and examples in a text
- CCSS.ELA-LITERACY.RI.5.4 — Determine meaning of words and phrases
- CCSS.ELA-LITERACY.RI.5.8 — Explain how author uses evidence
- NGSS — Connections to scientific practices

PACING OPTIONS

- Quick Read (10-15 min): Passage + questions 1-4
- Standard (20-25 min): Full passage + all questions
- Deep Dive (35-40 min): Add discussion + extension

DISCUSSION QUESTIONS

- Barry Marshall experimented on himself without telling his wife. Was this brave, reckless, or both? Defend your answer.
- Drug companies resisted a cure because they made money treating symptoms. How should we balance business interests with medical progress?
- Marshall knew he was right but couldn't convince anyone. Have you ever been certain about something others didn't believe? How did you handle it?

EXTENSION ACTIVITIES

- Research another medical discovery that was initially rejected (hand washing, germ theory, etc.) and create a presentation about how it was eventually accepted.
- Design an experiment that could test a hypothesis WITHOUT self-experimentation. What ethical safeguards would you include?
- Write a dialogue between Marshall and a skeptical doctor, with each presenting their arguments about what causes ulcers.

DIFFERENTIATION

- Struggling: Pre-teach vocabulary, partner reading
- Advanced: Add research, compare to related events
- ELL: Visual supports, pre-teach context

SOURCE

- Nobel Prize Organization / The New Yorker